TEXTILE BULLETIN

VOL. 66 JUNE 15, 1944 NO. 8

ARE YOUR PICKER APRONS THE WEAK LINKS IN YOUR PRODUCTION CHAIN?

Picker Aprons perform a most important function in the operation of Picking Machinery. If they are of poor quality, or are improperly constructed, they become weak links in your production chain, and troublesome delays and imperfect yarn invariably follow.

Our Picker Aprons are made of the highest grade materials and the assembling is performed by mechanics skilled in this exacting work. That's why they have established an enviable reputation for performance and long life in leading mills from Virginia to Texas.

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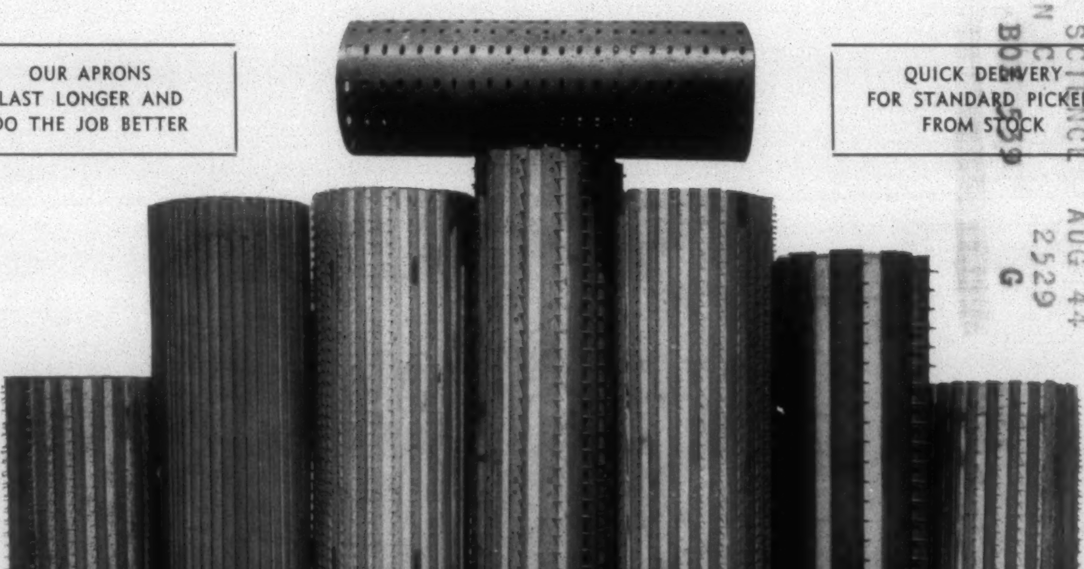
LAST LONGER AND
DO THE JOB BETTER

QUICK DELIVERY
FOR STANDARD PICKERS
FROM STOCK



TROY WHITEHEAD MACHINERY COMPANY

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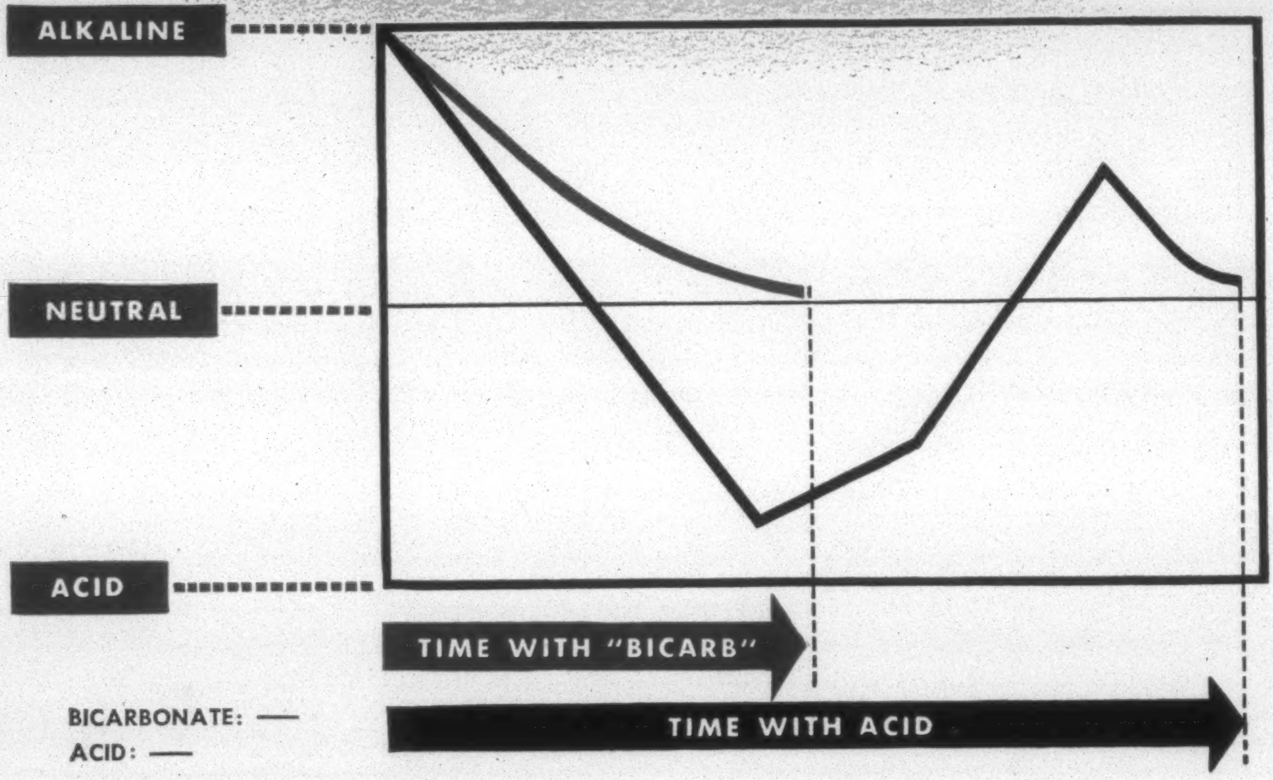
USE "BICARB"
TO REMOVE CAUSTIC!*



A NEW MATHIESON DEVELOPMENT

Eliminating acid's disadvantages, bicarbonate of soda effectively removes caustic by changing it into sodium carbonate or soda ash.

Originated and commercially developed by Mathieson Research, this new process achieves decided advantages over customary acid neutralization:

- *acid resistant equipment not required.*
- *no health or other hazards involved.*
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- *careful chemical control unnecessary.*
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Removal of caustic with bicarbonate is applied (1) after scouring on continuous boil-off machines, (2) after scouring in jigs, (3) after warp mercerizing of yarn, (4) after skein mercerizing of yarn, (5) after mercerizing of piece goods, (6) after kier boiling, and (7) after alkaline steaming, particularly caustic steaming, in the new continuous scouring and bleaching processes.

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INDEX TO ADVERTISERS—PAGE 45

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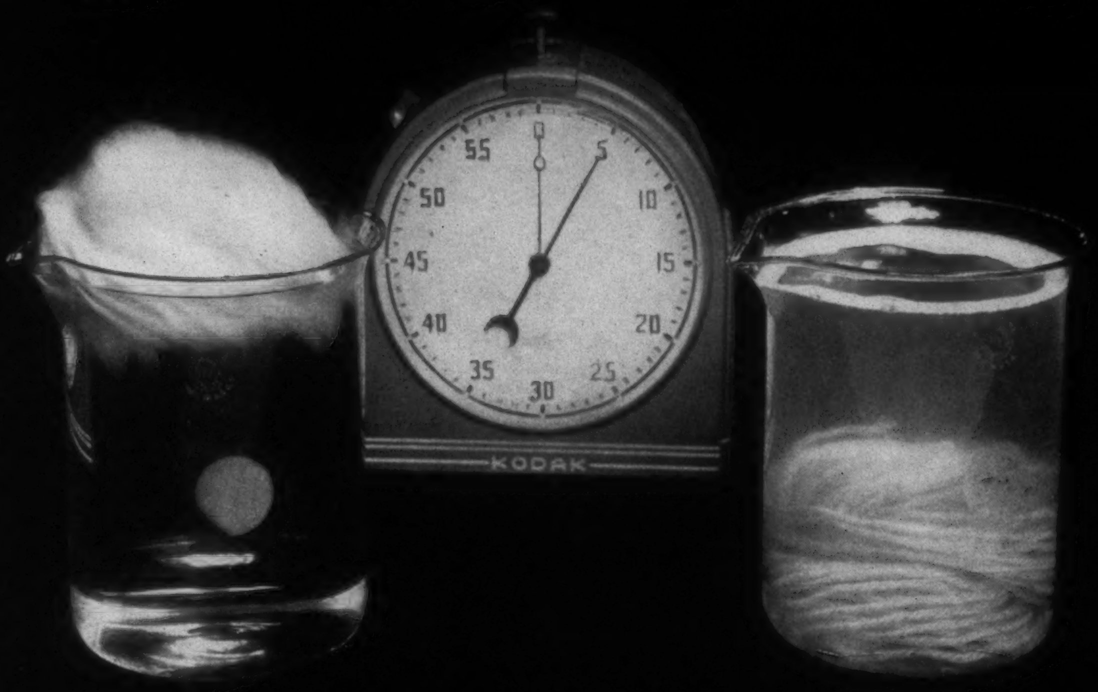

Thoroughness and Time are important factors in wetting out

WETTING OUT

Thoroughness and Time are factors in determining the potency of a wetting out agent. An efficient agent, such as Phi-Φ-Sol, produces almost instant wetting and penetration of liquids into material exposed to its solution. Phi-Φ-Sol produces a uniformity of application and distribution of the liquor into even the most compact bundles of yarns or fabrics. Level dyeing, sizing and finishing applications are obtained efficiently and economically from Phi-Φ-Sol solutions.

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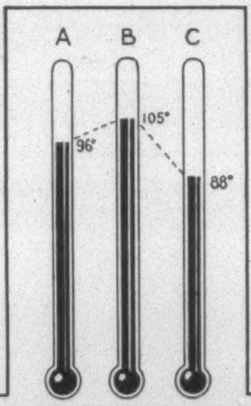

The above thermometers illustrate a hypothetical condition to show temperature ranges on a hot day

A—OUTSIDE TEMPERATURE.

B—NORMAL TEMPERATURE INSIDE MILL WITHOUT AIR-CONDITIONING.

C—INSIDE TEMPERATURE WITH BAHNSON AIR-CONDITIONING.

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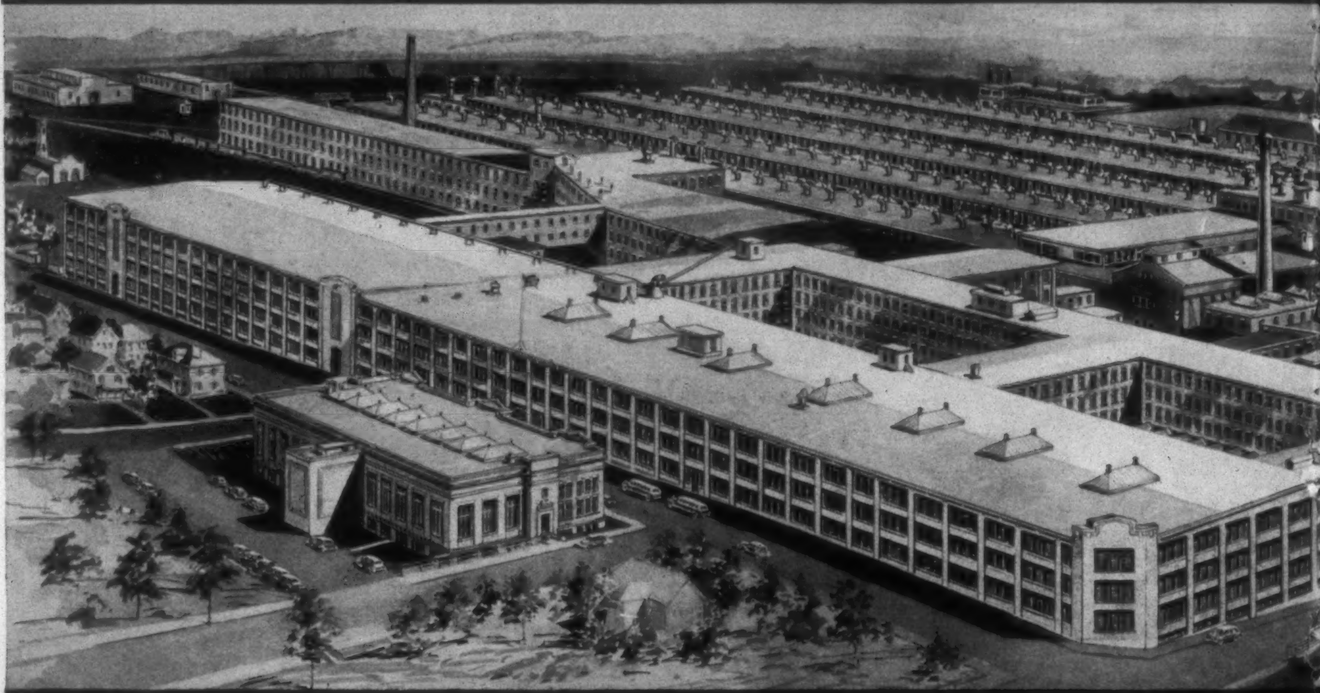

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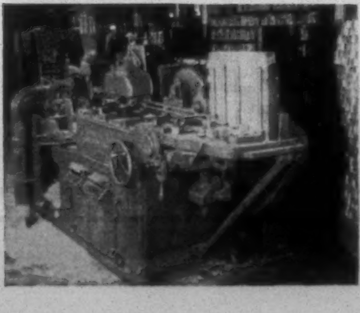

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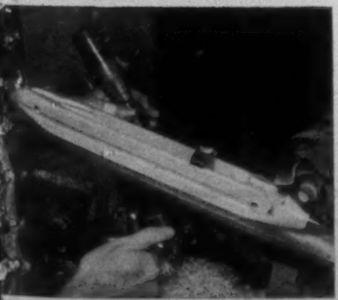

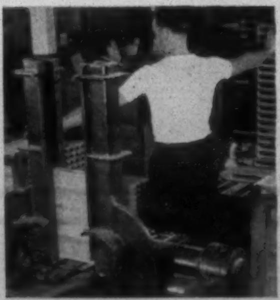

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4. Equipment for drawing either over-end or unrolling.
5. Arbors for various types of cones and tubes furnished for both machines.
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8. The Model 77 winds a range of counts from 8/3 to 8/100; the Model 40 from 30/2 to 8/40.

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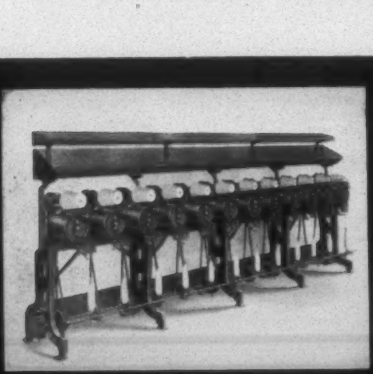
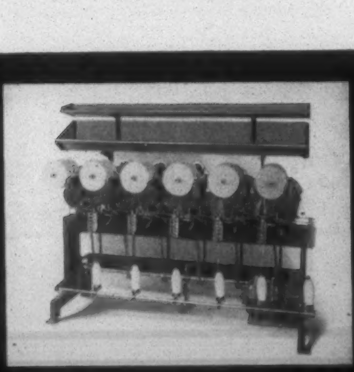
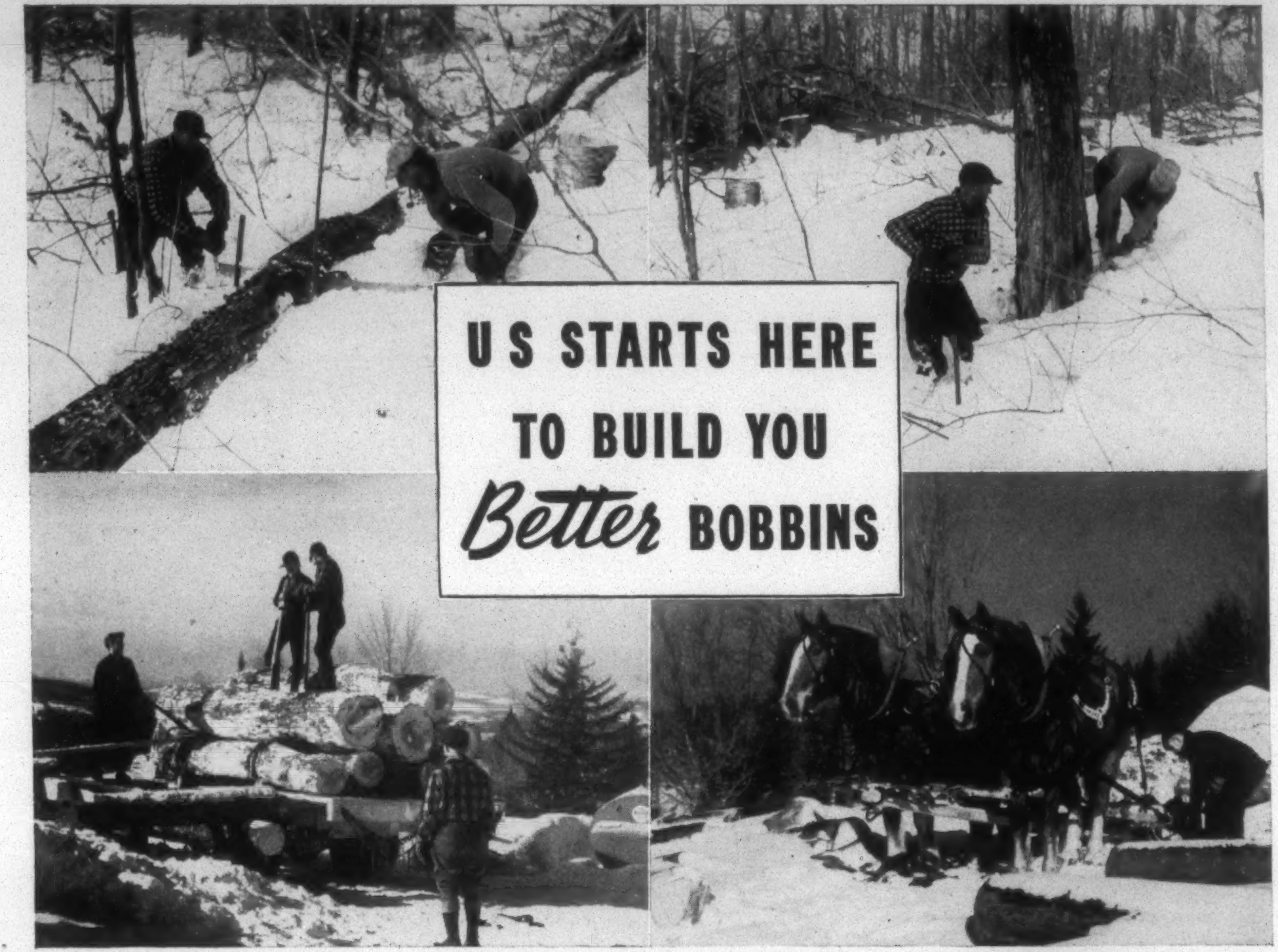


MODEL 40



MODEL 77



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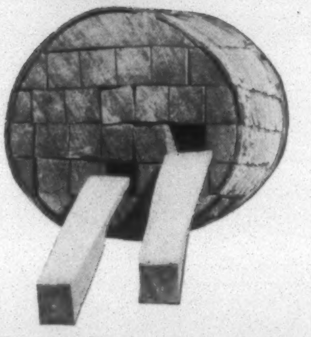
The maple in U S Bobbins is the finest that grows in northern and western Vermont, long recognized by experts as the best source in the east. U S prime yellow birch, from the same areas, is the superior texture and grade also used in plywood for airplanes and PT boats.

Birch logs are processed before they sour, a condition which shortens the life of the wood without changing its appearance.

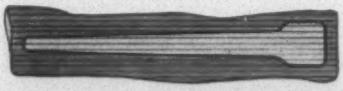
In U S sawmills, the best parts of the logs are made into bobbin blanks, and the remainder into lumber. This is the reverse of the procedure often followed by independent roughers.

This close control of raw material makes sure you get long life and trouble-free operation from U S Bobbins. It is one of the many reasons why it pays to consult U S on any question involving Bobbins, Cones, Rolls, Shuttles, Spools, or Tubes.



The "Split-Stock" process makes US Bobbins smoother, stronger, better balanced

Splitting the stock makes sure the bobbin is "centered on the grain" for turning. With sawed stock, cross grain often causes weakness, splintering, unbalance. Specify U S Bobbins for superior performance, longer service life.



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THIS IS NO. 45 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

(This is the fourth and last of a series of articles on tools used on Universal Winding Machines.)

SPECIAL TOOLS FOR NO. 60

The No. 60 Winding Machine requires the use of the following special tools:

Breakage Lever Wrench	60-409-2
Spring Lifter Hook	50-279
Cam Shaft & Drum Shaft Coupling Wrench	60-779
A Set of 3 Socket Wrenches	60-596XC
Cam Roll Gauge	60-922X
Grease Gun (for 9°15′ and 9°36′ paper coning only)	50-2725
Safety Screw Wrenches (Allen-type)	WR-102 and WR-103

BREAKAGE LEVER WRENCH

Wrench 60-409-2 (A in Fig. 1) is used to replace or adjust Breakage Lever 60-49-22CP.

When a replacement is to be made, it is first necessary to remove the Traverse Guard 60-45-9. (The following steps can be followed by reference to the drawing.) This is done by unloosening Screws 60-39, Nut NU-342, and Screw SC-7611, which will allow the Traverse Guard to be lifted away.

The Breakage Lever Wrench is then used to loosen Hex Nut NU-128 from the Breakage Lever Holder 60-50-7, after which Breakage Lever, Holder, Nut and Breakage Lever Rod 60-290-4 are removed.

Away from the machine, the various units can be reassembled with the new Lever, within the Traverse Guard. The nut is tightened slightly to keep the parts from falling off during reinstallation. The reassembled parts, still inside the Traverse Guard, are then replaced on the machine — making sure that the Link 60-296-2 is located on the Breakage Lever Rod.

With the Traverse Guard back in position, the Spring Lifter Hook 50-279 (see "Getting the Most from Winding No. 42") is inserted in the right-hand opening between the Guard and the Starting Lever 60-56-6, in order to raise the Breakage Lever Rod to its highest position. Then, with Wrench 60-409-2 slightly tightened on Nut NU-128, the Breakage Lever Holder 60-50-7 should be forced upward until the lower section of the Breakage Lever comes in contact with the finger on the Slub Catcher 60-161-8X. There should be just a contact; the Breakage Lever must not bind on the finger.

Then Nut NU-128 can be tightened securely.

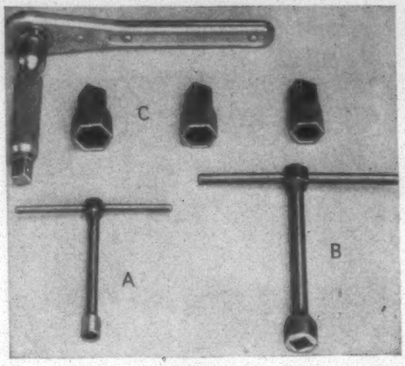

FIG. 1

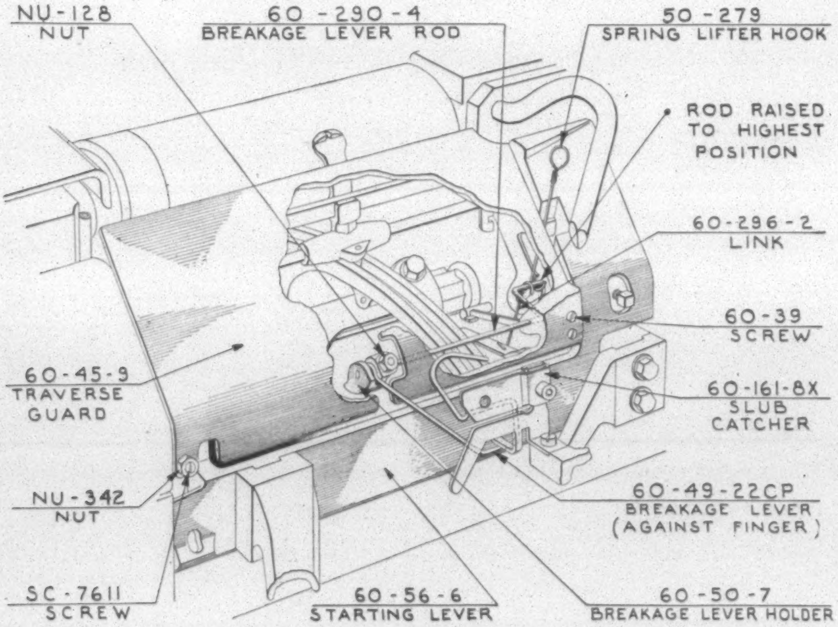

FIG. 2

CAM SHAFT & DRUM SHAFT COUPLING WRENCH

Should it ever be necessary to adjust Screws SC-7806 or SC-60-469 on the Cam Shafts or Drum Shafts, or if any new lengths of shaft are to be added, Wrench 60-779 is used — (B in Fig. 1.)

SOCKET WRENCHES

This set of Socket Wrenches (C in Fig. 1) consists of three different sizes of socket diameter.

13/16" size fits Nuts NU-103 on Leg Bolts 1879 and Bed Bolts 1880.

23/32" size fits Nuts NU-102 on Shelf Bolts 1851.

29/32" size fits Nuts NU-104CA on Bed to Bed Screws SC-7202.

CAM ROLL GAUGE

This gauge, 60-922X, is to be used to check wear on the Cam Roll and Cam groove. The method is the same as described in "Getting the Most from Winding No. 42." It must be remembered that the greatest wear in the Cam groove will be found at the *apex* of the rise of the Cam where the direction of the roll is reversed. Therefore, the test for wear in the groove should be made at this point *first*.

See our Catalog in TEXTILE YEARBOOK
43-GMW-45

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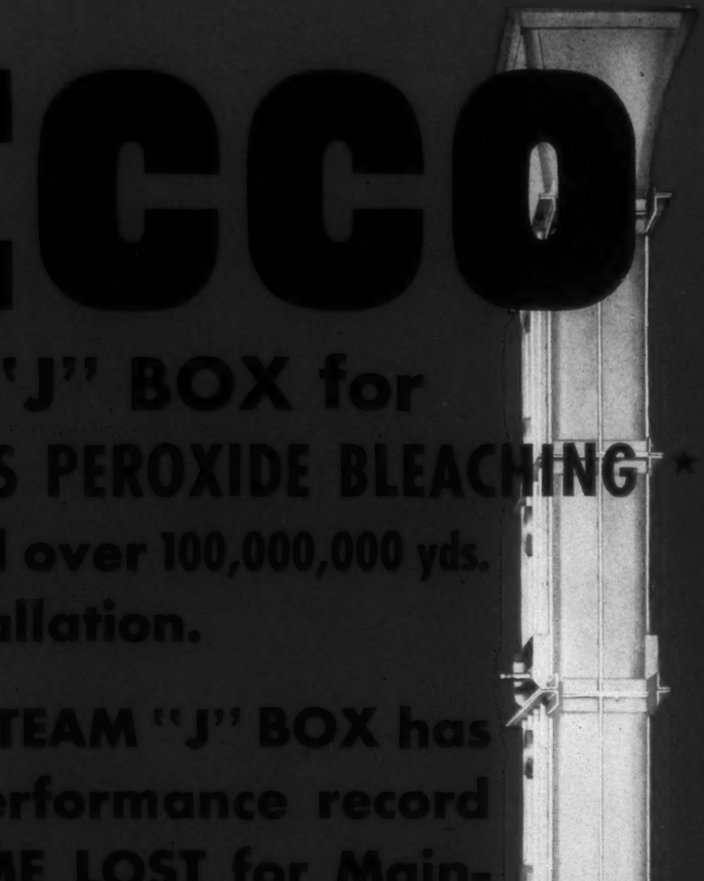
Every BECCO STEAM "J" BOX will give you the same service



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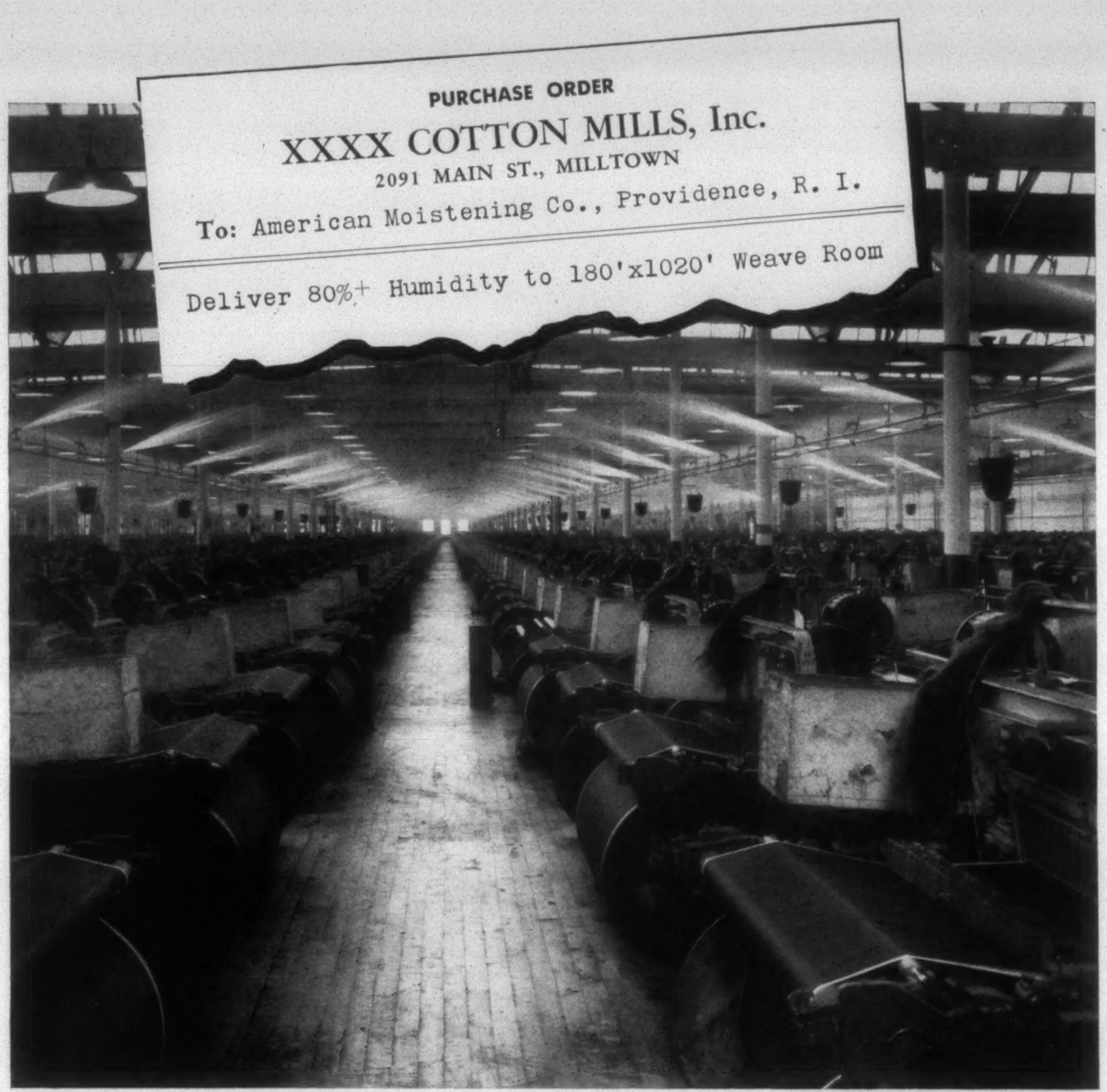

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A mill buying humidification doesn't order pipe, fittings, hangers, atomizers, compressors and controls. *It orders performance!*

The "know-how" to solve the many problems involving exposures, machine speeds, processes and fibers; to design and manufacture the most efficient equipment, and to put the right equipment in the right places comes only from long experience in handling the individual problems of a great variety of mills.

There are 50 years of this kind of experience behind AMCO products and engineering.

Inadequate or poorly controlled humidification may be preventing your equipment from attaining its full efficiency. Let an AMCO engineer survey your mill . . . he will be able to help you increase your war production and put your mill in a top competitive position for post-war business. Call him.

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Self-Cleaning
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AUTOMATICALLY SELF-CLEANING
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NO-DRIP—NO FEATHERING DOWN
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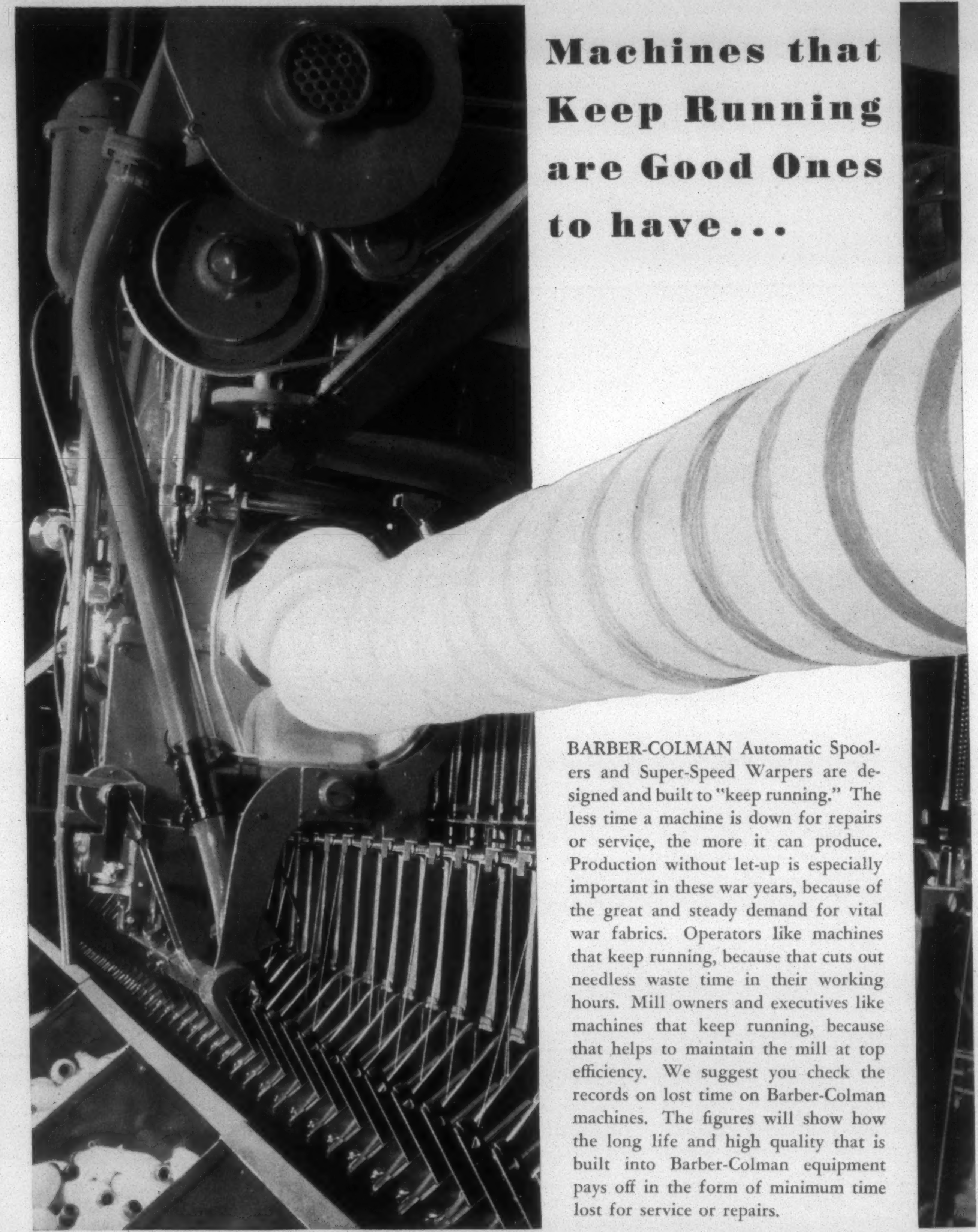

Machines that Keep Running are Good Ones to have...

BARBER-COLMAN Automatic Spoolers and Super-Speed Warpers are designed and built to "keep running." The less time a machine is down for repairs or service, the more it can produce. Production without let-up is especially important in these war years, because of the great and steady demand for vital war fabrics. Operators like machines that keep running, because that cuts out needless waste time in their working hours. Mill owners and executives like machines that keep running, because that helps to maintain the mill at top efficiency. We suggest you check the records on lost time on Barber-Colman machines. The figures will show how the long life and high quality that is built into Barber-Colman equipment pays off in the form of minimum time lost for service or repairs.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • TWISTER CREELS • MOISTURE CONTENT CONTROLS

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THE 5TH WAR LOAN IS ON—the most urgent, the most vitally important financial drive of the war!

Our men and women in the service, wherever they may be, are doing MORE than their share to speed the Hour of Victory! Here's *your chance* to do *your share! And your share is needed!*

Strip your pockets for action . . . get into the fight! Back the 5th War Loan Drive to the limit . . . buy War Bonds with every dollar you have!

BUY MORE—DOUBLE WHAT YOU DID BEFORE!

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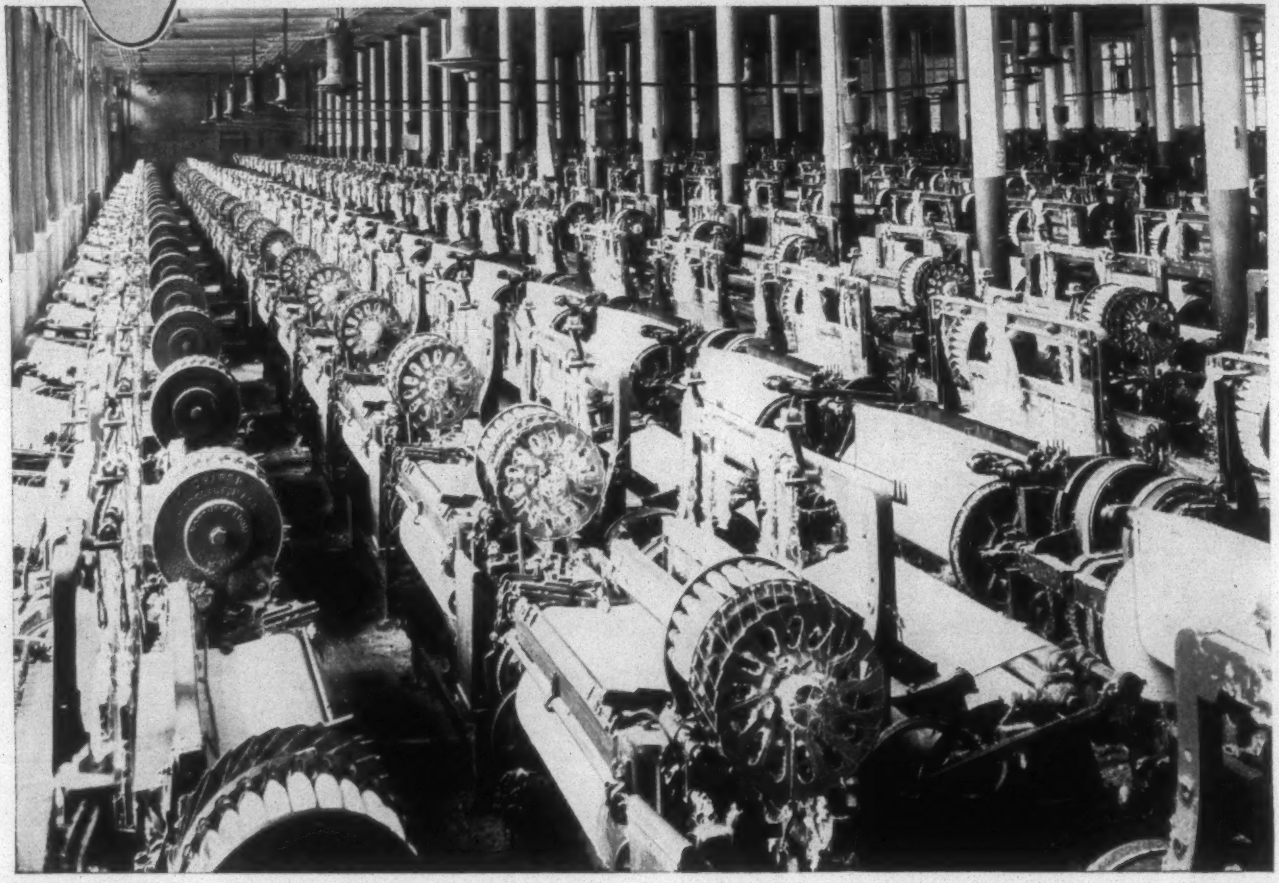
CORRECT Lubrication means Better Maintenance



CORRECT lubrication makes for better maintenance by preventing excessive wear.

Sinclair LILY WHITE OILS provide *correct* lubrication for spindles under all loads and speeds. NO-DRIP LUBRICANTS are highly efficient and non-creeping . . . especially suited for loom, cam, top roll, and comb box lubrication.

Where overtime peak load operation threatens excessive wear there is a lubrication problem. Consult us about it.

(Write for "The Service Factor" — published periodically and devoted to the solution of lubricating problems.)

SINCLAIR TEXTILE LUBRICANTS

FOR FULL INFORMATION OR LUBRICATION COUNSEL WRITE SINCLAIR REFINING COMPANY, 630 FIFTH AVENUE, NEW YORK 20, N. Y.

TEXTILE BULLETIN

Vol. 66 June 15, 1944 No. 8

Working Conditions That Meet The Test

THERE are 12 "tremendous trifles" which add up to very unsatisfactory working conditions, according to the Labor Relations Institute, whose field men report that these foes of employee morale are to be found in many textile mills. As listed below, they provide a handy means of checking up conditions in the individual mill. Working conditions are not up to par if you find:

1. Inadequate grievance machinery.
2. Inexperienced and inadequately trained foremen and supervisors.
3. Haphazard policing of safety rules and devices.
4. Favoritism.
5. Failure to keep employees acquainted with company policies.
6. Indefinite plant rules.
7. Neglect by management to compliment employees on good work.
8. Lack of efficient suggestion systems for employee-ideas on how to improve production and reduce waste.
9. Ill-kept washrooms.
10. Inadequate eating arrangements.
11. Dirty floors, windows, machinery.
12. Improper lighting and ventilation.

The need for grievance machinery is often overlooked in the small or average-size mill, spot-checks reveal—and not all large plants have a reliable means of uncovering and settling complaints. In many cases, the grievance machinery exists in name rather than fact, and constitute a mere facade of employer benevolence rather than an "open door" through which the alleged or real complaints of workers can come to light. To be successful, the grievance set-up must encourage employees to air their troubles, and workers must be confident that no penalties are attached.

In all discussion of working conditions, grievances naturally come first, because to understand the "gripes" of labor is to overcome and prevent them. In the best-run grievance set-ups, the overseer is the pivotal figure. He is the man who is in constant touch with the workers and their problems. But unless he fully understands that complaints can be filed in his department without in any way reflecting on his foremanship, he may obstruct the flow of grievances. Many old-type supervisors resent "chronic complaints" and tend to brush off the worker's request for some adjustment by branding it out-of-hand as being "against company policy." But when overseers and superintendents have been won over to the plan as being a forward step in production and morale, they can be depended upon to give every grievance a willing ear.

Another stumbling block is delay. Nothing could be more depressing to the employee than to have his complaint unanswered for a period of days or weeks. This creates an impression of stalling, which is enough to undermine the whole grievance process. Provision should also be made for appeals from the overseer's verdict—either to a designated representative of top management or to a joint committee. Institute executives recommend the prior course, since joint committees tend to become slow and complex. However it is handled, the grievance machinery can provide a dependable safety valve for all types of situations involving discontent.

Because a worker has been with the company a long time, or because he is the highest-skilled in his line in the mill, does not mean that he will make a good supervisor. From a working conditions point of view, operating executives should possess the following qualifications: (a) leadership; (b) technical knowledge; (c) the right attitude toward company policies; (d) dependability; (e) co-operation; and (f) initiative. "Technical knowledge" involves not only the ability to perform a particular plant operation, but also that of teaching others to perform it easily, safely and well. Dependability is a factor which counts as heavily in the subordinate's eyes as in management's. Co-operation and initiative are basic; the foreman who refuses to budge until somebody else breaks the ice will never be accepted as a leader by those who are supposed to follow him.

Discontented overseers spell discontented workers, so the institute emphasizes incentive plans and morale builders for supervisors, including lending further dignity to his position by— *(Continued on Page 50)*

Textile industry executives have heard a great deal lately on the subject of "employee morale." When attending various associational meetings they have been urged to do everything possible to put across to employees the importance of textile production. No decision has yet been reached as to just how successful such a program can be. "Employee morale" is largely "employee satisfaction;" no amount of flag waving can make a good worker out of one whose job is distasteful. With this thought in mind the accompanying article is presented; it was furnished exclusively to this magazine by the Labor Relations Institute of New York.

Race-Plate Covering on Quality Weaves

By H. E. WENRICH

ALTHOUGH race-plate covering is a supply room problem, the maintenance need is taken care of by loomfixers and/or floor hands such as tying-in boys or section helpers. Today, with decreased loomage on civilian goods, certain fabrics cannot be obtained and substitutes must be resorted to. This substitution issue is up to the supply department, and if it makes a wrong guess, production is curtailed through loss of loom time and sub-standard cloth.

Running tests cannot always be resorted to in order to determine a suitable fabric for race-plate covering, as the need for a substitute to replace a substitute may be immediately present. Being familiar with certain fabrics, therefore, is a help in determining a suitable cloth for race-plate covering. And knowing the requirements for a good covering is also a requisite.

First of all, it would be a difficult task to weave quality rayons as well as many other fine quality weaves, without covering the race-plate with a suitable cloth to cushion warp yarn. Even on cottons, woolens and worsteds and other weaves of heavier construction, including the new plastic yarns, race-plate covering is advisable. Various types of covering materials are available for this purpose, each type having certain characteristics that favor it for certain weaves.

Suitable Covering Materials

Billiard cloth can be obtained in several grades. Purchased in yardage bolts and stipped into uniforms widths, or it can be secured in ready-cut rolls for the purpose. The lower grade felts will soon wear out, exposing the wood or metal-covered race board. Renewal of covering is often necessary before a warp-out. Poor quality is not satisfactory. Use the best grade to assure long service. Billiard cloth of superior quality has been a favorite in silk and rayon mills for many years. The better grade construction of billiard felt will last for several months providing mechanical factors are nearly normal. Some of the better grades are also reinforced with a cotton tape backing which is glued onto the race-plate and helps prevent unset glue from soaking into the top layer of felt. Felt-type covering is well suited for bright rayons, cottons, fine worsteds and twisted yarns. For heavy looms using large shuttles on rugs and heavy woolens or similar weaves, Palmer blanket strippings, table felts and heavier felts are suitable. Do not use heavy felts on light yarns.

Corduroy, the stoutly-woven corded cotton, is a favorite in most rayon mills as an ideal race-plate covering for the majority of rayon weaves. In the weave shed often confronted with a change-over in weave constructions, corduroy is one of the best adaptable coverings for all-round weaves. Thus if a twill is going out of the loom, and a new warp remount is taffeta or cord, etc., the race-plate covering can be left intact providing it is not worn through to the race-plate and a fixer judges the old covering may last a warp-out.

Corduroy can be purchased in yardage lengths, bolts of various lengths and cut into desired widths and usually can be torn or ripped through lengthwise. Rolls of suitable width can also be purchased from the usual supply sources. If small bits of loose threads unravel from the edges, cut them clean at their binding point—do not pull the loose threads free to the ends. Glue to the race-plate with flat surface down. Avoid harsh-woven corduroy weaves. Run the pile lengthwise of race-plate. During weaving the shuttle will eventually wear the pile down. When the corded ribs are completely worn flat and the over-all appearance of the covering is raggy, remove at warp-out and replenish with new covering. A fixer can usually judge if worn covering will last for another warp.

Suitable for nearly every type of weave, corduroy is likewise an ideal covering for nearly any type of yarn from dull, semi-dull to bright and glazed yarns. The best grade should be used. Do not run the rib crosswise of race-plate as warp yarn presses between cords and forms reed marks.

Pile fabrics can also be purchased in yardage lengths or ready-cut strip rolls. This material should be soft and fairly thick with approximately 1/16-inch nap. Very good for the usual run of dress weaves and other quality constructions, pile fabric is gaining more friends in the weave shed as a covering material, due to its long-wearing features. In a ⅛-inch nap, the covering is far superior to other fabrics when running the new plastic yarns. Plastic has a tendency to shed dust-like residue which forms together in loose batches of resin waste, taking on a glazed or sticky form when rubbed by the passing shuttle. The shuttle often collects this sticky residue along its bottom, which hardens and must be cleaned off from time to time. A longer nap in the pile covering allows plastic warp yarn to clean itself out between the pile strands and fine particles of residue fall between and to the bottom, separated from forming together. On very delicate yarns, the shorter nap is an ideal race-plate covering. When the nap has worn down smooth and sections of filling yarn starts showing shreds, remove covering for replacement. On plastic and glazed weaves, covering should be replaced as soon as the pile is worn down near the base.

Cotton tape can be secured in various widths and grades. For many cotton weaves, worsteds, hard-twist silks and cord-like fabrics, cotton tape is superior due to its long-wearing qualities. A good cotton tape will outlast any other covering material, but for most rayon and sheer weaves, the surface is too harsh after shuttles have traversed it for any length of time. It is not a satisfactory covering for rayons and fine cottons.

Muslin and other fabrics such as canvas and remnants

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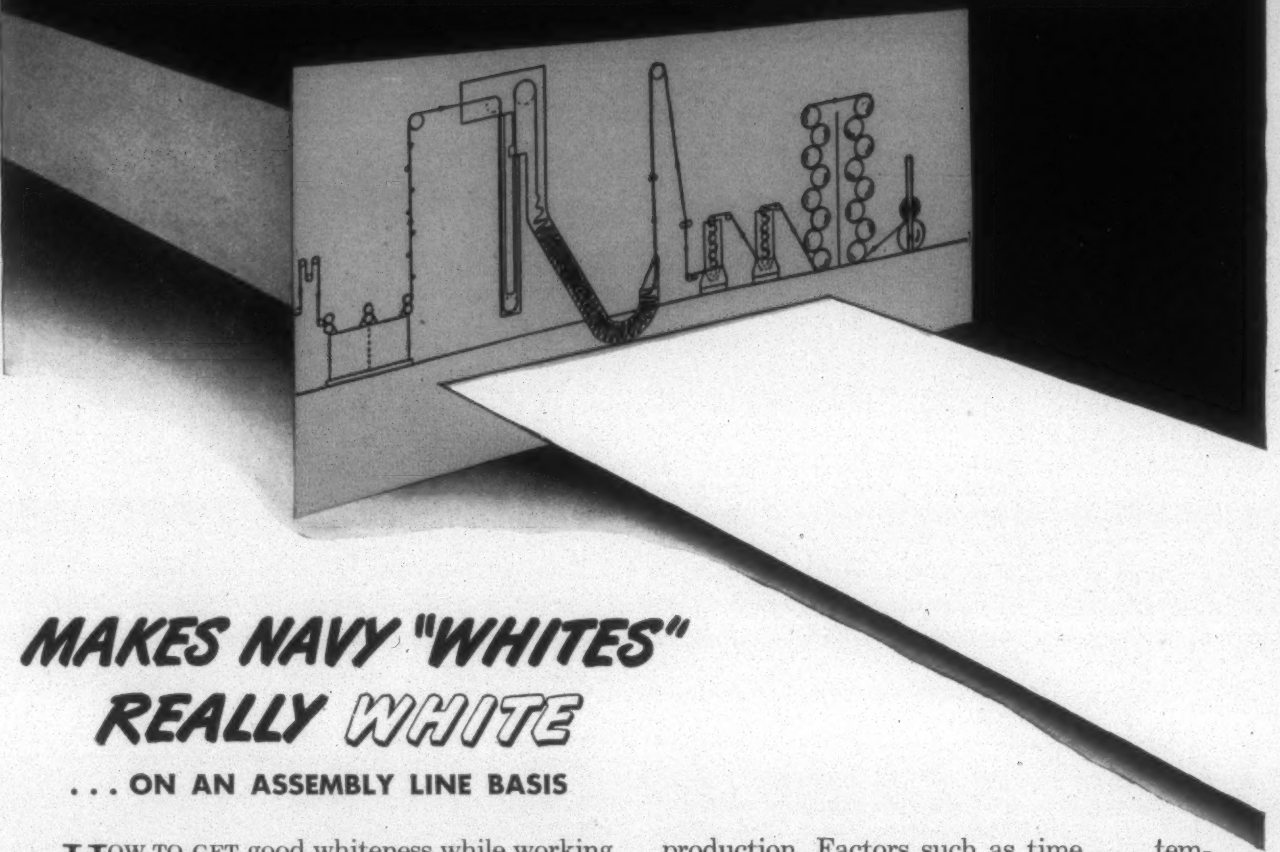

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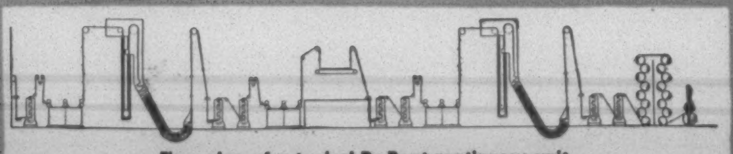


Flow plan of a typical Du Pont continuous unit can be used to a certain extent on some weaves. Generally, however, these fabrics are not so satisfactory as the edges, when torn, permit loose threads to tangle with warp yarn, creating small floats and holes. The heavier muslin and ticking are used on many rayon and cotton looms, and if the edges are trimmed sharply to prevent loose strands, will last for a considerable length of time. The softer the fabric, the more likely it will be found suitable for rayons and sheer weaves. Do not use netting or porous weaves of like nature for race-plate covering, as glue soaking into the fabric will be exposed quicker than other weaves, chafing and causing unnecessary warp yarn trouble.

Paper covering is used on some few looms, but this material is not suitable on high-speed machines. Even the gummed paper reinforced with cotton mesh is unsatisfactory. Paper can be used for patch-up jobs as will be explained later.

Gluing To Race-Plate

One of the secrets of success in race-plate covering is to avoid too much glue. It is not necessary to use hot glue. Supply room attendants should issue suitable cold liquid glue and a one-inch brush to fixers or floor hands for attaching covering to wood or steel race-plates. When glue and brush have been expended, new supplies are issued.

If a wider brush than one-inch is used, too much glue may be applied. Dip the brush lightly in glue and brush over the race-plate so a very thin film is applied. Try to come within 1/16-inch of the race-plate edge near the reed side. This is not always possible, but with care a good job can be done. If too much glue is left to harden near this edge, warp ends are often chafed and broken when pressing against the hardened glue spots. Some fixers make use of a glass container for glue. If the glass is thin, the container will soon be broken. One of the best containers is a small emptied soap tin can. When in use it should be kept not over one-half filled. When not being used the lid should be kept firmly in place to avoid waste.

Shattered military tires frame the daily attendance bulletins in departments throughout the Cleveland plant of Industrial Rayon Corp., a daily reminder of the Army's dependence on rayon workers now producing yarn, cord and fabric.

Fish glue is one of the most common adhesives used for the purpose of holding covering in place. The scarcity of this excellent adhesive forces substitution, which in some instances, will work to advantage. Some satisfactory adhesives are the resins, lacquer and vegetable glues. Some of the lacquer-type adhesives are more difficult to remove from the race board when re-covering. It is better to soak old glue when removing and scrape off in a wet stage. If scraped dry, the race-plate is eventually scraped down and may be grooved or become uneven.

Varnish is occasionally used to attach covering. Shellac is also a bonding agent frequently resorted to. Neither of these two liquids are satisfactory, as they fail to anchor securely to the fabric. Neither is capable of withstanding constant shuttle wear and covering will loosen up during loom operation.

Water glass, or in trade terms, carton glue, is a well known adhesive and suitable for attaching coverings for worsted, cotton and most silk weaves, but not so satisfactory on finer cotton and rayon weaves. This adhesive is not as flexiable as desired. It is clear and water resistant and difficult to remove. When applied to race-plate, covering must be placed on quickly while still sticky. This adhesive dries fast, and once set, will not penetrate into the covering sufficient to hold. If covering is placed on before adhesive has time to harden, the fabric will hold firmly until down to the last shred. Avoid brushing too near reed edge, as lumpy particles form like bits of glass and are equally destructive to good warp running. After use, place lid firmly on container. Exposed carton glue hardens within a few minutes, rendering it useless.

Tacking Is Not Suitable

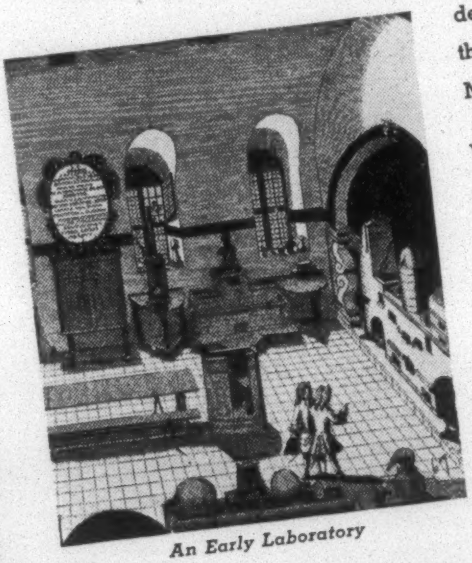
Tacking should be avoided. Some looms are equipped with small steel fasteners, screwed into the race-plate near the ends and at center on looms equipped with center filling forks. When using steel plates, fasten the end in center so the plate will be under the fabric. These center plates can be dispensed with, as abrasion of warp yarn on end plates become frequent. Glue the covering down and fasten the plates at each end. Do not use tacks along the fabric edges or near ends. A loose covering swiches back and forth with lay movement and soon cuts or folds over towards the reed.

The basic requirement for race-plate covering is to cushion warp yarns from abrasion, and this worthwhile purpose is often better realized when running some looms without covering and some with suitable covering. It will be found that on looms without covering, many small sections of warp yarn are bruised within a certain restricted area of approximately two inches and continues warp-wise. This trouble is due to a faulty shuttle flight. When the shuttle is picked out of the box it may rise and strike the top warp shed, bounce downward, and on striking the bottom shed against the race-plate, strikes hard enough to bruise the yarn beneath. Usually, when the shuttle is striking in the foregone manner, one shed only—*(Continued on Page 43)*

THE ROLE OF CHEMISTRY In the Development of Textiles

NO. 5 OF A SERIES

BEYOND THE LABORATORY



An Early Laboratory

In this chemical age, we see evidence all around us of the wonders that can be brought to being in the laboratory.

Jean Antoine Claude Chaptal, though he lived more than a hundred years ago, (1756-1832), had the vision of a modern industrial chemist. He studied chemistry at Montpellier, obtaining his doctor's degree in 1777; and for a period occupied the chair of chemistry at the School of Medicine there.

With inherited capital, he established a chemical works where he manufactured mineral acids, alum, white lead and soda, as well as other substances. He developed the art of dyeing cotton Turkey red, using alum as a mordant for the dye, madder. And he also worked out a method of bleaching with vapor or fumes. His many achievements in applied chemistry were honored by both Napoleon and Louis XVIII.

Today, the whole textile industry realizes how definite and practical is the application of the chemist's work to the development of new fabrics and finishes. Textile men would surely say with Chaptal, "Chemistry casts its light not only on what is already known and practical but also creates each day new arts."

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PENETRANTS DETERGENTS SOFTENERS REPELLENTS FINISHES

The Incidence and Prevention of Dermatitis From Textile Finishes

By DR. LOUIS SCHWARTZ

SOME ten years ago all cases of dermatitis claimed to be due to textiles were blamed on the so-called aniline dyes. The name aniline dye is really a misnomer because most of the dyes are not derived from aniline. It is far better to call them coal tar dyes or synthetic dyes.

While it is true that some of the synthetic dyes are skin irritants and sensitizers, when we consider the fact that nearly everything we wear is dyed, then it is realized that the percentage of people who claim to develop skin rashes —from fabric dyes is almost infinitesimally small. On an average in normal years, less than 300 claims per year are made to manufacturers and stores that dermatitis is developed from wearing fabrics. This is far less a percentage than the number of people who develop rashes from eating strawberries, tomatoes, fish, etc.

It was not until 1934 that dermatologists discovered that fabric finishes sometimes cause dermatitis. At that time, our attention was called to a case of dermatitis in a man who had bought a cheap pair of socks. The dermatitis involved all of the skin covered by the sock. It was first claimed by the man, and confirmed by his physician, that the dye as usual was the cause, especially since it bled. An examination of the socks showed that the body was made of rayon and dyed with many colors. The toe and the tops were made of cotton dyed black, and yet, all of the skin touched by the whole sock was inflamed.

The Finish Was At Fault

This, to our mind, was not consistent with the fact that the dye or dyes was the cause of the trouble. Obviously, the dyes used on the black toes and tops were different from the many colored dyes used on the rest of the sock. We, therefore, began to look for a common chemical which was used on all of the socks. We went to the manufacturer and found that a finish was used on the sock, and that this finish consisted of a sulphonated castor oil. Patch tests performed on the patient with the dyes, the fabrics and the finish, incriminated the finish as the cause of the dermatitis. The finish was traced to the manufacturer and it was found that the pH of the finish was close to 8.0. Further tests on the patient showed that he was highly sensitive to alkalies of any kind. Therefore, it was inferred that the alkalinity of the finish was the actual cause of the dermatitis rather than the sulphonated oil itself.

This, of course, was an isolated case of alkali sensitivity and other similar cases were not reported. At this time, sulphonated castor oil and starches were the principal finishes used on fabrics, and dermatitis rarely occurred among workers in dyeing and finishing establishments who applied or came in contact with these finishes or among the wearers of fabrics on which these simple finishes were used.

It was not until 1940 that our attention was again called to dermatitis from fabric finishes. At that time, we received a communication from a dermatologist in Canada that there was an outbreak of dermatitis occurring there among the wearers of certain cotton fabrics. In collaboration with this dermatologist, it was found that a certain finish used on these fabrics was the cause of the dermatitis. The finish was traced to its manufacture from whom the ingredients were obtained. Patch tests with each of the ingredients showed that an ester gum was causing the trouble.

About the same time, we began to receive reports of dermatitis occurring in the United States from certain cotton shorts and ladies' stockings, both nylon and silk, and from certain fabrics such as trousers, coveralls, etc. An investigation was begun, and you are all familiar with the results of this investigation which showed that the same finish that caused the dermatitis in Canada was the principal cause of the dermatitis resulting among the users of the wearing apparel.

In the course of this investigation, we found that not only were the wearers of these fabrics affected, but that some of the workers in the factories where the finishes were applied were also affected with dermatitis which was directly traceable to this finish.

It also developed during the course of this investigation that there were other finishes which contained various types of resins and that some cases of dermatitis had also occurred with these resin finishes. The urea-formaldehyde malamine formaldehyde, ester gum and methacrylate resin finishes were among those which were studied.

Method of Testing Resulted

As a result of this investigation, there was formulated and advocated a method of testing new fabrics finishes for their skin irritating qualities before putting them on the market. Briefly, this method consists first, in testing the finish on animals to determine whether it is a primary skin irritant, and thus avoid its use on fabrics coming in contact with the skin. If found not to be a primary skin irritant, patch tests should be performed on 200 individuals with the finished fabrics to find out how many cases of dermatitis develop, and then repatch the same 200 subjects ten days later to determine the the skin sensitizing properties of the finish. These tests are to be—*(Continued on Page 48)*

Dr. Schwartz is medical director of the dermatoses investigations section, U. S. Public Health Service, Bethesda, Md. The accompanying paper was first presented at the National Safety Council's 32nd Annual Safety Council.

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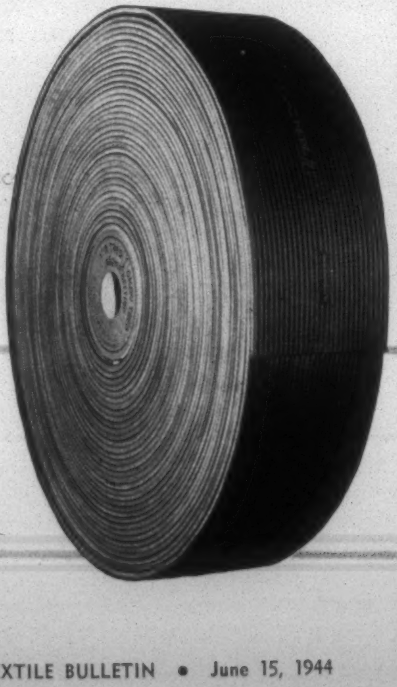

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LEATHER BELTING

Resin Finishing of Synthetic and Natural Yarn Blended Fabrics

By T. S. McDUFFEY — Part Four

The first three articles of this series covered the general preparation and application of urea formaldehyde and melamine resins. This article takes up the increasing use and application of alkali soluble cellulose ethers for a distinct and separate finish. Goods treated with alkali soluble cellulose ethers may be finished with urea formaldehyde or melamine resins for special hand or drape.—Technical Editor.

FOR many years finishing plants have experimented with prepared viscose cellulose and cuprammonium cellulose solutions in attempts to obtain certain desirable properties on cotton and cotton-rayon blended fabrics, but as a whole these products seemed to lack ease of application and the uniformity required for finishing operations. During the past ten years alkali soluble cellulose ether, which was discovered by Lillenfeld, has been greatly improved and numerous applications have been worked out for its use in the finishing of cottons, cotton-spun or filament rayon and spun rayon-acetate rayon blended fabrics.

The versatility of alkali soluble cellulose ethers as to their application, coagulation and finishing on various blended fabrics, as well self-fabrics, has made it of increasing importance. Some of the chief uses developed over the past few years are: (1) the finishing of military goods; (2) helping the dyer and finisher obtain better dyed unions and finished effects between fibers and yarns of different chemical, physical and lustrous appearance; (3) obtaining improved finishes on spun and filament rayon, self and blended fabrics in conjunction with other resins or cation softeners; and (4) helping the white goods finisher and printing plant through equalizing of fabrics (stepping up weight of construction and equalization of yarns).

Various Processing Methods

The processing of mosquito netting with alkali soluble cellulose has been carried out by several different methods, which may be classified briefly as follows:

(1) Acid treatment after padding by (a) pad-jig or (b) continuous range with no partial drying;

(2) Acid treatment after padding with partial drying of goods. This procedure is carried out advantageously where a continuous finishing range is available.

In acid treatment after padding by the pad-jig method some plants have processed the mosquito netting direct from the gray; however, finished goods do not compare favorably with those desized prior to finishing. Two procedures which have found widest use. The first is to singe in gray; pad twice in prepared alkali cellulose solutions containing pigment colors; give acid treatment on jig; neutralize lightly on jig with mild alkali; boil off with strong alkaline bath on jig; then dry and finish on frame. The second procedure is to desize by padding and boil off on jig; dry, frame and singe; pad one time with prepared alkali cellulose solution containing pigment colors; give acid treatment on jig; neutralize lightly on jig; boil off with strong alkaline bath on jig. Pad at 140° F. in desizing mix and allow to stand a few hours before boil off.

The desizing mix is made up of 25 pounds desizing enzyme to 100 gallons. The 50-gallon bath for boil off on jig is made up of seven pounds concentrated caustic soda and five pounds penetrant; one end at 160° F.; four ends at boil (200° F.); one end hot rinse; two ends, 130° F., one quart formic acid; run onto shell from this bath—or use two ends, 100° F., two pounds muriatic acid; one end rinse to remove excess muriatic acid, then onto shell ready for drying and padding with prepared alkali soluble cellulose.

Must Maintain Thorough Dispersion

The alkali soluble cellulose solution is usually prepared on a four to six per cent strength basis and the pigment colors are mixed in ready for padding. To keep these colors in thorough dispersion an electrically driven mixer is placed in the reserve tank containing alkali soluble cellulose solution. The prepared netting is padded cold and then run into the acid treatment for proper coagulation and finishing.

The 60-gallon acid treatment bath is made up of 2½ gallons 84 per cent acetic and five pounds of acid resistant penetrant, running two to four ends at 120° F. The goods to show proper neutralization should test not over 5.00 to 5.50 pH, or otherwise on finishing up the goods will become flaky and mottled in appearance, and when tested will show a variable pH throughout bale. The use of mineral acids, such as sulfuric or muriatic, is carried out by some plants on equivalent acid neutralization basis, but from the writer's observations, the use of an organic acid, such as acetic or formic, is preferable; though slightly more expensive, it will be less expensive on final account when total yardage of approved goods is taken into account.

The acid treated goods are rinsed cold one end on another jig, thus permitting the acetic acid bath to be replenished and used for additional coagulation treatments. The treated goods are lightly neutralized in bath at 120° F., using two pounds soda ash or tri-sodium phosphate for two

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—for the 5th War Loan drive during June and July. The need for the 5th War Loan is immediate, crucial. For impending events may make the 5th the supreme financial effort of the war.

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Now, to personal solicitation, add the sales incentive of a definitely established plant quota. Build your campaign around a quota plan. Set up departmental goals. Stress percentage of participation figures. Stimulate group enthusiasm.

In planning your quota campaign, work in close cooperation with the Chairman of your War Finance Committee. Everything is set to make the 5th War Loan drive a huge success—with your help!

(Note: You've read this message. If it doesn't apply to you please see that it reaches the *one* person who can put it in action!)

Here's the Quota Plan:

1. Plant quotas are to be established on the basis of an *average* $100 *cash* (not maturity value) purchase per employee.
2. Regular Payroll Savings deductions made during the drive accounting period will be credited toward the plant quota.
3. 90% of the employees are expected to contribute toward raising the cash quota by buying extra 5th War Loan Bonds: 1—Outright by cash. 2—By extra installment deductions. 3—By extra installment deductions plus cash.

Example: **JOHN DOE Mfg. Co.** — 1,000 Employees

1,000 employees x $100	=	$100,000 Cash Quota
Regular Payroll deductions during the eight weekly payroll Accounting Periods of June and July		30,000
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TEXTILE BULLETIN

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ends, then are shelled ready for finishing. The pH of the finished goods should show between 6.00 and 7.00.

The neutralized netting is best dried on a 90-foot covered frame at a speed of 40 to 50 yards per minute, running at a temperature of 250° F. or higher so as to obtain a fully cured finish, thereby helping to hold the finished goods to the desired shrinkage and shade during storage.

The continuous method acid treatment with no partial drying is an adaptation of the pad-jig method to a continuous range where there are the necessary units in the range to carry out the work satisfactorily. Production can be increased somewhat, but requires exacting technical control to obtain finished goods equal to the pad-jig method described above. Goods handled by this continuous method are usually run around 30 to 40 yards per minute. Plant runs have shown it best to process goods that have been prepared by the second procedure (desized, boiled off, singed and dried). The alkali soluble cellulose mix is prepared with the pigment colors and padded on cold; skyed; then entered into a series of three boxes containing the acid in varying strengths for coagulation; skyed in between second and third acid box. It is best to check carefully the pH of second and third acid boxes and cloth leaving before it enters and after leaving the two mild alkaline neutralizing baths. The cloth should keep to the same pH control as used in the pad-jig method. It has been found that the concentration of the acid coagulation baths must usually be stepped up 50 to 75 per cent to obtain a properly neutralized cloth, showing a pH of 6.00 to 7.00 and one free of mottled and flaky appearance as well as two-sided appearance. The neutralized goods are dried and framed as described in the pad-jig method.

Acid treatment after padding with goods partially dried may be carried out by the pad-jig method by giving the wet padded goods a partial drying at 30 to 40 yards per minute on a covered frame at 180° F., then giving an acid coagulation treatment, neutralizing and finished as described. Though this method is slightly longer it results in finished goods more free from mottledness observed on goods acid treated while wet immediately after padding with the soluble alkali cellulose solution. Plants not having flue dryers hooked into a continuous range have tried out the hot flue dryer in place of drying partially on the frame, but this has not been entirely satisfactory, as the padded goods must be run very quickly through the hot flue dryer and this high speed does not balance with the acidification and neutralizing operations.

Good News from Washington

Executives and employees of three Southern textile plants were more than pleased this month by letters from Undersecretary of War Robert P. Patterson; the letters contained notification that continued outstanding performance on war contracts had merited the addition of stars to Army-Navy "E" pennants previously awarded to the plants.

The Aragon (Ga.) Mills division of A. D. Julliard & Co., Inc., which was granted the production flag more than a year ago, now displays two stars on its pennant. Single stars have been added to the flags of the American Viscose Corp. plant at Front Royal, Va., and the seven plants of Springs Cotton Mills located at Lancester, Chester, Fort Mill and Kershaw, S. C.

Four more plants in the South, Goodyear Clearwater Mill No. 1 at Cedartown, Ga., Goodyear Clearwater Mill No. 2 at Rockmart, Ga., Springfield (Tenn.) Woolen Mills Co. and Stark Mills of United States Rubber Co. at Hogansville, Ga., have been notified that excellent work on war orders has won the Army-Navy "E." Ceremonies at Hogansville will take place June 20, and suitable award programs for the other mills will be arranged in the near future by military officers and officials of the companies concerned.

Another adaptation of this partial drying of the padded goods before an acid coagulation is that of partially drying on wrapped dry cans in the range after the goods have been padded with the prepared alkali soluble cellulose, then acidifying, neutralizing and giving a mild alkaline treatment. The goods may be batched or shelled here and then run on covered frames for drying and framing later.

Great Possibilities

The application of alkali soluble cellulose to spun and filament rayon goods in self and blended fabrics offers tremendous possibilities to smart dyers and finishers. These blended fabrics contain cotton in varying percentages as well as bright and dull rayons or acetate rayons; and by applying alkali soluble cellulose, a dyer can aid in obtaining better unions on the dyed shades as well as a more uniform hand on the finished fabric. The finisher can further improve the finished fabric by applying a resin or cation softener.

Spun and filament goods may be given an alkali soluble cellulose treatment before or after dyeing according to the type of color being used. Only on light shades have the pigment colors shown to be of possible value though they crock noticeably for dress goods.

For dyeing direct colors it is best to process the goods to be dyed by either the pad-jig or continuous method outlined previously, and omit the pigment colors from the alkali soluble cellulose solution. The treated goods can be padded, jig or beck dyed, then hydro-extracted, dried, framed and then a special resin and cation softener padded on quetsch ready for curing and final finishing. Plants applying direct colors on goods by this method have found that the wash fastness is noticeably stepped up and results in very uniform dyed goods from lot to lot.

It has been found that a ten per cent or more increase in color yield is obtained when vats and napthols are applied on goods prepared with the alkali soluble cellulose in preference to applying after being dyed. This increase in color yield is dependent partially upon the amount of alkali soluble cellulose that the processed goods actually take up. The strength of the alkali soluble cellulose pad solution varies from one to three per cent according to the type and construction of rayon goods to be treated. It has been found that the spun rayons have a greater pick-up and that the fibers are more thoroughly penetrated than the filament fibers which are mainly surface coated with very little fiber penetration. For this reason there is increasing application to the spun rayon fabrics and blends and less on filament fibers.

The vat colors are best run—*(Continued on Page 42)*

North Carolina Vocational Textile School Dedicated

SOUTHERN cotton is headed for the greatest success or the greatest disaster it has ever experienced, and such institutions as the North Carolina Vocational Textile School at Belmont point to success, stated Governor J. Melville Broughton of North Carolina in officially opening the school June 3.

The opening was a colorful event celebrating the completion of the school, bringing together many important figures of the North Carolina textile industry. The school, a part of the state educational system, is a two-story and basement $200,000 plant equipped with machinery for the practical training of textile mill operatives. It is on the Wilkinson Boulevard a short distance in Gaston County from the Belmont bridge.

Odus M. Mull, chairman of the board of trustees, was master of ceremonies. The Belmont High School Band, under the direction of Mrs. Kenneth Hoyle, furnished the music and the Rev. W. M. Currie offered a prayer. Harley B. Gaston of Belmont introduced Governor Broughton. Special guests included R. Gregg Cherry, president of Spencer Mountain Mills at Spencer Mountain and Ranlo, N. C., as well as the Democratic nominee to succeed Governor Broughton in this fall's elections, and the school's board of trustees, who were Mr. Mull, T. E. Browne, F. B. Bunch, C. A. Cannon, Frank Jackson, C. A. Rudisill, J. B. Vogler and Secretary George W. Coggin. Also introduced were Superintendent Martin L. Rhodes and Principal Tilden W. Bridges.

Governor Broughton in his opening remarks gave special credit for the origin of the school to Carl Rudisill, J. B. Vogler, Odus Mull and Gregg Cherry.

Hundreds of thousands of North Carolinians, the governor commented, depend upon cotton for their livelihood, from the fields to the finished product, and more than many of them realize they face grave problems. It would be a sad and tragic era in this state should cotton suddenly be supplanted by new materials devised by science. It would be a sad and tragic era should cotton fail to find a full and expanding world market after the war. The South urgently needs some man who knows cotton to have a voice in the post-war conferences, he stated.

The South's big textile asset, he said, is an ability attractively to manufacture cotton. He placed this above the other reasons more frequently given—the climate, cheap labor, contiguity to the cotton fields. We know how to manufacture cotton attractively, he said, and that gives us the leadership. If that is forgotten, or neglected, the South will lose its supremacy regardless of its climate, etc. For that reason he was proud to see cotton research coming so rapidly to the fore.

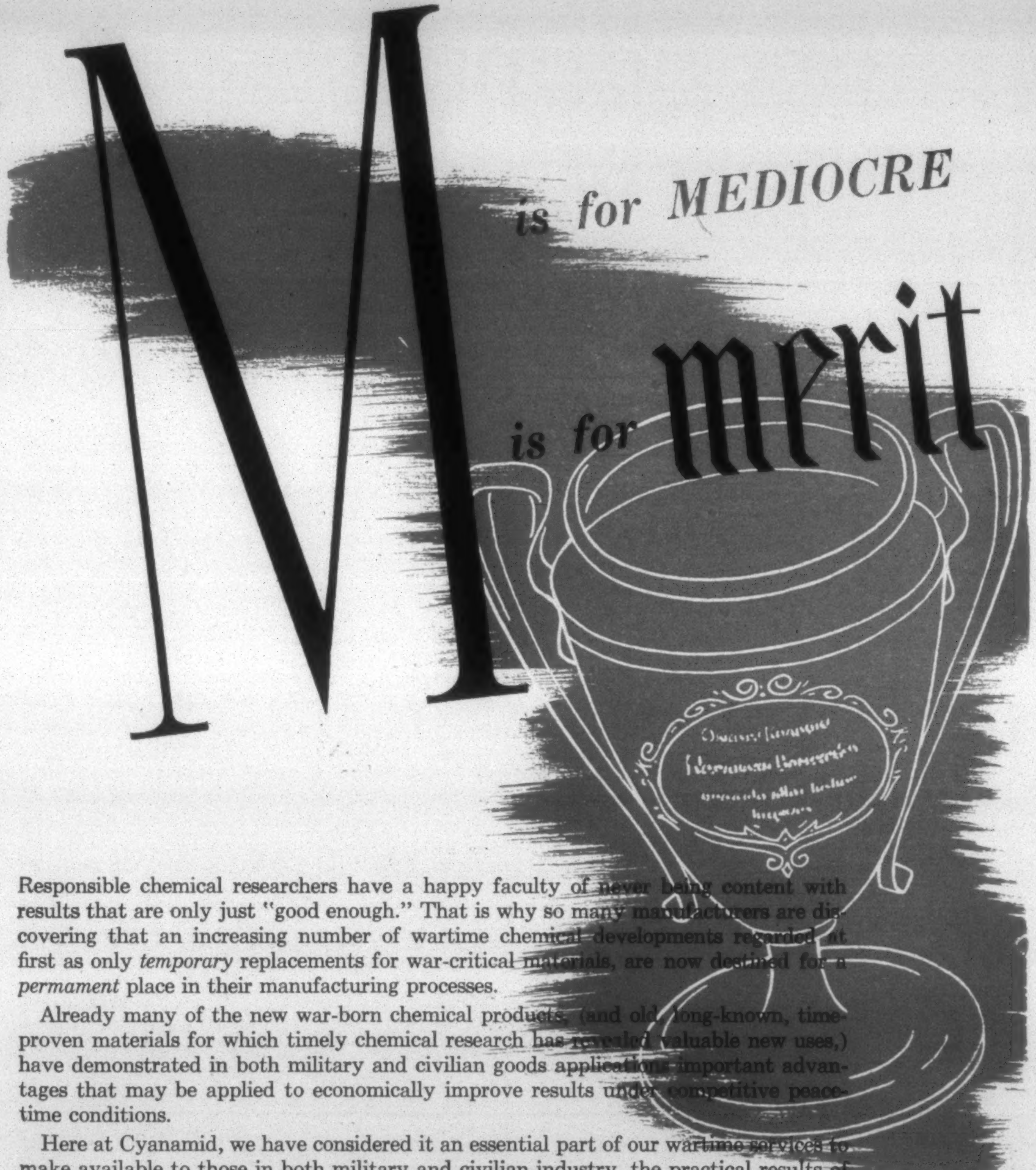
The South cannot build on cheap wages, he said, and it can't build on a living standard which encourages Federal relief, but only on independence of the individual and equal opportunity and the absence of fixation of caste or class.

Having said that, he stated that the South has the greatest opportunity, come peace, the section has ever had—accompanied by the danger of the greatest tragedy. If we don't get along together, he said, ejecting both the outside radical agitator and the home-grown exploiter of working people, tragedy is on the way. If we do have the common aim of developing our own resources and opportunities, then we face an era of good feeling and prosperity for the highest as well as the lowest person.

After the program, the visiting manufacturers and guests were entertained at an informal luncheon at the Belmont Community House. R. Dave Hall presided and Governor Broughton made a brief talk.

NATIONAL STARCH OPENS NEW LABORATORIES

The above illustrations show the three main units of extensive new laboratories of National Starch Products, Inc., at 270 Madison Avenue, New York. At top left is the technical service laboratory, at top right the research laboratory and at lower center the development laboratory. These ultra-modern facilities occupy the entire tenth floor of the building which also houses the company's general and Eastern sales offices. The laboratory installations are altogether new, and a great amount of testing equipment representing the latest design is in evidence throughout. Company officials have stated that National has the facilities to service the exacting requirements of war industries and is prepared to solve the many adhesive and starch problems involved in post-war planning and reconversion. Not pictured in the layout above are the firm's textile, resin adhesives and training laboratories, as well as small capacity pilot plants for both the adhesives and starch divisions.



Responsible chemical researchers have a happy faculty of never being content with results that are only just "good enough." That is why so many manufacturers are discovering that an increasing number of wartime chemical developments regarded at first as only *temporary* replacements for war-critical materials, are now destined for a *permament* place in their manufacturing processes.

Already many of the new war-born chemical products, (and old, long-known, time-proven materials for which timely chemical research has revealed valuable new uses,) have demonstrated in both military and civilian goods applications important advantages that may be applied to economically improve results under competitive peacetime conditions.

Here at Cyanamid, we have considered it an essential part of our wartime services to make available to those in both military and civilian industry, the practical results of our broad and intensive chemical research and development. If you have a wartime problem or a post war plan that the "right" chemicals may help to solve, consult with Cyanamid *now.*

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MILL NEWS

BIRMINGHAM, ALA.—The Birmingham plant of Avondale Mills was presented with the National Security Award during a recent meeting at the Avondale Mills Community House. Capt. John H. Atkinson, Jefferson County Civilian Defense head, presented pins to members of the civilian defense organization while J. O. Speed awarded service ribbons to 35 workers who have given 500 or more hours of volunteer service to civilian defense. W. E. Williams, plant superintendent, was given special recognition for his 1,000 hours of service. Lieut.-Col. James P. Barnes, official of the War Production Board in Alabama, was the principal speaker and Albert Driggers acted as master of ceremonies.

WEST POINT, GA.—West Point Mfg. Co. has agreed to operate its utility facilities under jurisdiction of the Alabama Public Service Commission. The company supplies electricity, water and telephone service to several thousand families in the Alabama towns of Lanett, Langdale, Fairfax, Riverview and Shawmut, where most of the workers in its textile plants are employed.

CHATTANOOGA, TENN.—E. I. du Pont de Nemours & Co. has completed the purchase of the site here for its planned post-war nylon plant and deeds transferring the five tracts, included in the approximately 600 acres, have been recorded at the county court clerk's office. The company paid a total of $202,800 for the site, the deeds show. The site is on the north side of the Tennessee River about three miles from the city limits. Fronting on the river, the property extends from a point just below Chickamauga Dam to the Lupton City spinning mill property of the Dixie Mercerizing Co.

Governor Colgate W. Darden, Jr., of Virginia lays the cornerstone at the new United States Rubber Co. textile plant at Scottsville, Va., for twisting high tenacity rayon tire cord needed in synthetic rubber tires. When completed, the new plant will produce enough rayon tire cord to build 600,000 medium-size truck tires a year. Left to right, H. E. Humphreys, Jr., vice-president, United States Rubber Co.; H. Gordon Smith, general manager of the company's textile division; Governor Darden; and Percy Harris, mayor of Scottsville.

FRONT ROYAL, VA.—A certificate of merit has been awarded to the employees of the local American Viscose Corp. plant in recognition of a new record of 116 days without a major accident. The award, presented by W. B. Carter, plant safety supervisor, was accepted by Gerald S. Tompkins, plant manager, on behalf of the plant's employees. He congratulated the employees for their concerted efforts in making the award possible, and for bettering their previous record by 16 days. The certificate is being put on display in each department of the plant, and will then be made a permanent display in the plant cafeteria.

CHARLOTTE, N. C.—Southern Friction Materials Co. has sold a $50,000 issue of preferred stock intended to use in debt retirement and plant expansion. Contract for erection of an addition to the present plant has been let to Southeastern Construction Co. Construction, which will begin next month, will result in the addition of 3,000 square feet of floor space and a consequent 50 per cent increase in production. The plant now employs some 100 persons in the manufacture of heavy textiles and "Cottonleather," a plastic-treated cloth.

CLEMSON, S. C.—Excelsior Mills' new rayon tire cord plant is rapidly nearing completion, and a contract has been executed with the Defense Plant Corp. to provide equipment at a cost of approximately $700,000. Priorities have been granted by the War Production Board and the equipment is expected to be installed very soon. Grounds and buildings at the new plant have been financed privately, but equipment and housing are sponsored by the Federal Government. The mill, expected to be the largest independent tire cord production unit in the country, is more than 600 feet long. Fifty brick houses will be used by key employees and their families.

DECATUR, ALA.—With one new addition just completed to the Goodyear Decatur Mills fabric plant, construction has been started already on still another addition, officials have announced. Otto L. Beiswenger, manager of Goodyear's engineering staff, said the second addition, like the first, will be devoted to production of rayon fabric for tires and other rubber products. Construction will cost under $500,000. The second addition to the Decatur mill will mean employment of approximately 250 more persons. The two new additions add about 250,000 square feet of floor space to the original Goodyear mill in Decatur. The completed addition, and the new one, which is to be completed about Aug. 1, are one-story buildings which are approximately 280 by 360 feet. They bring the total floor space utilized by Goodyear in Decatur to 402,888 square feet. The new addition now under way is being built by the Rust Engineering Co. of Birmingham, Ala., and Pittsburgh, Pa. Although the first addition was financed by Goodyear as part of its nationwide $30,000,000 improvement program, the second addition is being financed by the Defense Plant Corp.

PACKAGE DYEING AND BLEACHING

All Type Colors on Cotton Yarns

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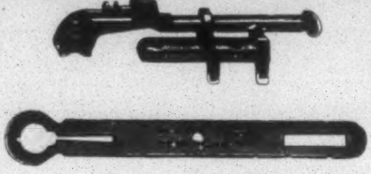

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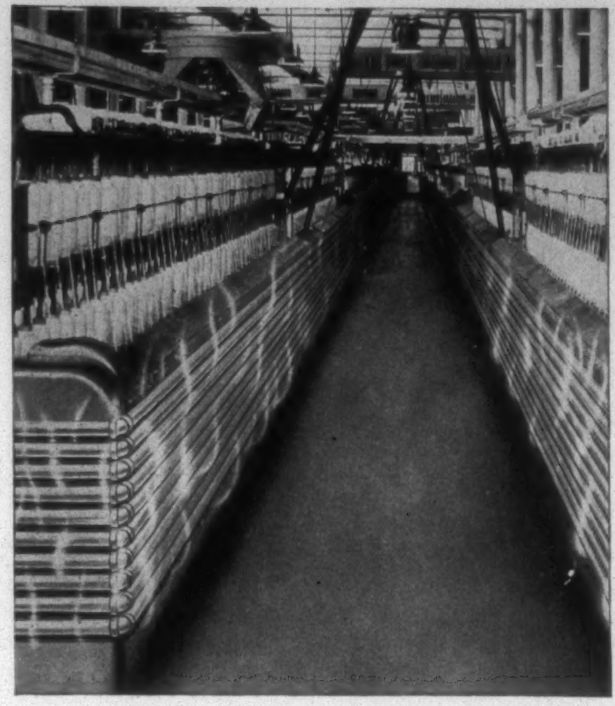

Spinning Frames or Radiators?

Every active spinning frame is a radiator. The more and the faster it produces, the more heat it radiates. At times, this heat may equal that of a 10-branch steam pipe coil.

Modern textile machinery creates its own manufacturing handicap, on the one hand, and begs for the cure on the other.

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PERSONAL NEWS

P. M. Neisler, Jr., son of the treasurer of Neisler Mills, Inc., at Kings Mountain, N. C., was married recently to Miss Joan Arrowood of Charlotte. The bridegroom is connected wth his father's firm.

John R. B. Hawes has succeeded R. H. Singleton as manager of Icard (N. C.) Cordage Co.

R. T. Dunlap has been promoted to vice-president in charge of production at the Buffalo, N. Y., plant of Wickwire Spencer Steel Co., and A. G. Bussman has been named assistant to the company president, E. P. Holder. E. J. Byrnes of Wickwire Spencer has been appointed a member of the Office of Price Administration's precision mechanical springs industry advisory committee.

A. L. Gamble, commissioner of labor for the State of South Carolina, has been appointed to the American Standard Association's textile safety code committee.

Wellborn B. Hill, secretary and treasurer of Newnan (Ga.) Cotton Mills, is now president of the Newnan Rotary Club.

John W. Littlefield of Greenville, S. C., has been appointed to the Southern sales staff of Watson-Williams Mfg. Co., Millbury, Mass. He will serve mills in South Carolina, Tennessee, Georgia, Alabama, Mississippi, Texas and Oklahoma. Walter P. Dabell will continue to represent the company in North Carolina, Virginia, West Virginia, Maryland and Pennsylvania.

Harold Ballard has succeeded R. A. Justice as overseer of spinning at Stowe Spinning Co., Belmont, N. C.

H. D. Engelsman

Henry D. Engelsman has been apointed sales manager and technical service supervisor for the Metallizing Co. of America, Chicago. He has been with the firm two years as sales and service engineer. Metallizing Co. of America is a pioneer manufacturer of metal spraying equipment.

David S. Ball has resigned as superintendent of Eastern Mfg. Co. at Selma, N. C., to become general manager and treasurer of Whitley Cotton Mills, Inc., Clayton, N. C.

Nash H. Eldridge of J. P. Stevens & Co., Inc., has been unanimously re-elected president of the New York Credit Men's Association. H. P. Reader of Cannon Mills was re-elected a vice-president of the club.

C. L. Allen is now overseer of spinning, winding and warping at Monroe (Ga.) Cotton Mills.

H. F. Hogue has resigned as superintendent of the American Yarn & Processing Co. plant at Whitnel, N. C., to accept a similar position with Trenton Cotton Mills, Gastonia, N. C.

The photograph above shows David Clark, editor of TEXTILE BULLETIN, as he received the honorary degree of Doctor of Textile Science conferred May 29 during the spring graduation exercises of North Carolina State College at Raleigh. Left to right: Dean Malcolm E. Campbell of the N. C. State College textile school; Registrar W. L. Mayer of the college; David Clark; and Col. John W. Harrelson, the college's dean of administration.

A. Alex Shuford and J. W. Warlick, textile plant executives of Hickory, N. C., have been named president and treasurer, respectively, of the Hickory Community Chest.

S. M. Cauble, who recently resigned as superintendent of Trenton Cotton Mills at Gastonia, N. C., is now superintendent of Acme Spinning Co. at Belmont, N. C. He succeeds J. J. Duncan, who has retired because of ill health.

John L. McCollum has succeeded James R. Kennedy as Southwest region chief of the cotton and fiber division, Office of Distribution, War Food Administration. His headquarters are at Dallas, Tex.

J. L. Hutcheson, Jr., vice-president of Peerless Woolen Mills at Rossville, Ga., is now a member of the War Production Board's woolen utility fabric industry advisory committee.

Owen Fitzsimons

Owen Fitzsimons has assumed duties in Washington as special assistant to Dr. Claudius T. Murchison, president of the Cotton-Textile Institute, Inc., in the capacity of liason agent between the institute and various government agencies (WPB, OPA, WMC, etc.) administering war controls for the textile industry. Mr. Fitzsimons, whose home is in Charlotte, is field agent for the institute and secretary-treasurer of the Carded Yarn Association. It has been decided that during the present emergency he will better be able to serve the trade if stationed in Washington. Although his Charlotte office will remain open for routine matters, executives desiring urgent assistance in government matters have been asked to contact Mr. Fitzsimons at the Cotton-Textile Institute Washington office, 1026 17th Street, N.W. Since World War I he has been connected with the industry in either manufacturing or trade association activities. He formed the Carded Yarn Association in 1936, and was instrumental in introducing and promoting the acceptance of the present cotton yarn rules bearing endorsements of the Southern Combed Yarn Spinners Association, the Association of Cotton Yarn Distributors as well as the Carded Yarn Association.

A. A. Kuhn, treasurer of Fiber Mfg. Co. at Newton, N. C., has been appointed a member of the War Production Board's narrow fabrics industry advisory committee.

—(*Continued on Page 41*)

Houghton Wool Tops

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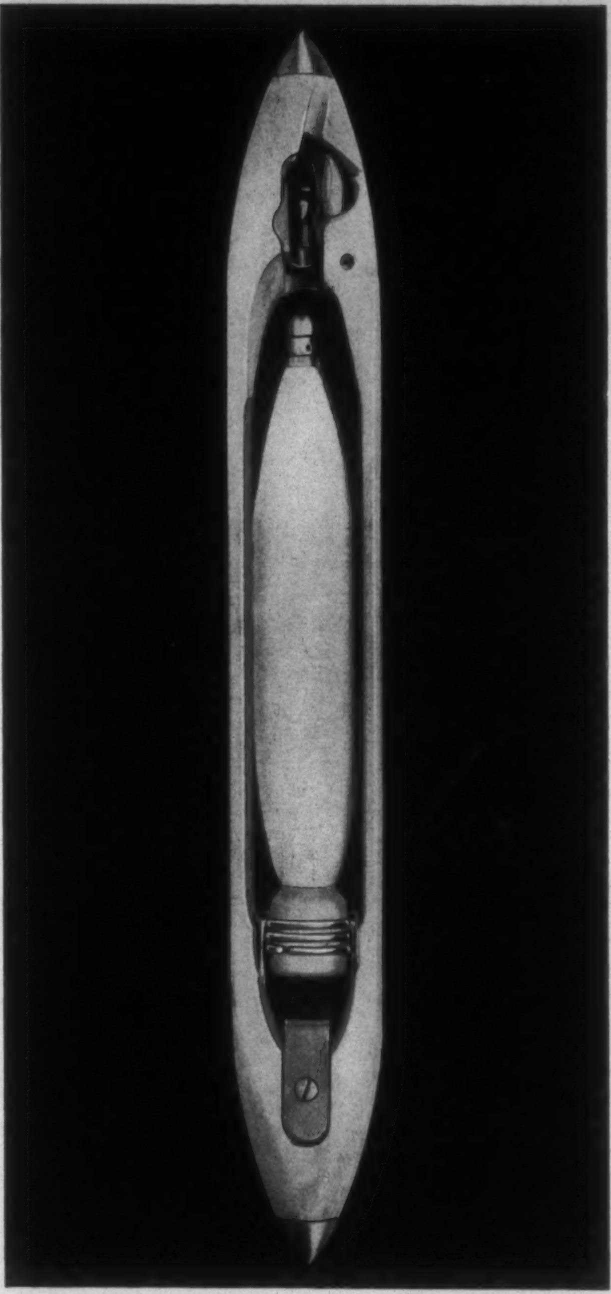

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Capt. Ellis Royal (On leave in U. S. Army)	Associate Editor

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Contributions on subjects pertaining to textile manufacturing and distribution are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Went Plumb to Hell

From a report of a labor union meeting at Charlotte during the recent campaign for the Democratic nomination for United States Senator we quote:

> "James F. Barrett, former president of the State Federation of Labor, presided and in introducing Congressman Cameron Morrison, candidate in the May primary for the United States Senate, said in part:
>
> " 'Last year, when America was in an era of hysteria and the Smith-Connally Bill was being acted upon in the United States Congress, this man voted "NO" on that hateful measure in a thunderous tone, and then he voted to support the President's veto of that iniquitous piece of legislation."

Congressman Morrison, speaking in reply to this glowing introduction, said in part:

> "One man said to me that labor's support might hurt me in other quarters of the state. I said to him that if there is a man in this state who does not want to vote for me because organized labor is for me, that man can *go plumb to hell.*"

The voters in North Carolina must have accepted Cameron Morrison's invitation to *"go plumb to hell,"* for the primary vote was Hoey 183,996, Morrison 71,756. Congressman Morrison, with the support of both the A. F. of L. and the CIO, in his effort to return to the United States Senate, carried three of the 100 counties in North Carolina and they were all very small counties.

He had formerly served as governor and as United States Senator and had a fine record prior to supporting the effort of John L. Lewis to prevent the regulation of labor unions.

Radio Commentators

When we win this war, it can be truthfully said that it was won in spite of the radio commentators and that throughout the struggle many of them were an added burden.

Our statement, of course, does not apply to all radio commentators but it does appear to us that it does apply to more than half of those who broadcast war news and assume to comment upon war activities.

At the time of the Quebec conference every radio commentator knew that it was expected to deal with war against Japan and that, as Russia was not at war with Japan, it could not participate.

In spite of that knowledge certain of the radio commentators kept the air waves hot with insinuations relative to Stalin not being invited to attend and with statements about his being offended.

In our opinion it was a deliberate effort, upon the part of certain commentators, to cause friction between Russia and the United States and Great Britain.

Stalin's recent statement about the magnificent accomplishments of the American and British soldiers during the invasion of Normandy and his observation that it was the greatest feat of its kind in history, brings to mind the constant heckling of certain radio commentators one year ago and six months ago and their apparent efforts to arouse sentiment against our military leaders and force them to begin the invasion.

Day after day they spoke about Stalin's demand for a second front in France and tried to make the American people believe that if France was not invaded immediately, and a second front was not opened, Stalin would withdraw his army and make a separate peace with Germany.

There never was any evidence that Stalin had demanded an immediate separate front and his recent complimentary statement indicates that he knew the plans of the American and British leaders and was well satisfied with them.

Our invasion losses, even after a long period of careful preparation and after our accumulation of airplanes had made it possible to reduce Germany's production of war materials and blasted her communications, will be very severe.

Had the radio commentators succeeded in arousing a public sentiment strong enough to force the invasion before we were fully prepared, our losses would have been terrific.

Many fine young men of America and Great Britain are alive today only because our military leaders refused to yield to the propaganda of radio commentators and make the invasion attempt before we were fully prepared.

Now many of the radio commentators are spending much of their time, upon the air, trying to force the leaders of the United States and Great Britain to accept Charles de Gaulle and give him a free hand in France.

De Gaulle has an unfortunate disposition and it appears that he can get along with no one except himself.

The loyalty of General Giraud to France was beyond question. He escaped from a German prison camp and as soon as he reached North Africa began to build a French army for the liberation of his country. De Gaulle could not get along with General Giraud and very promptly set him aside.

Although he and his associates had agreed to send a large number of French officers with the invasion forces and he knew that their assistance would be of great value, he refused at the last minute to send more than a very small number

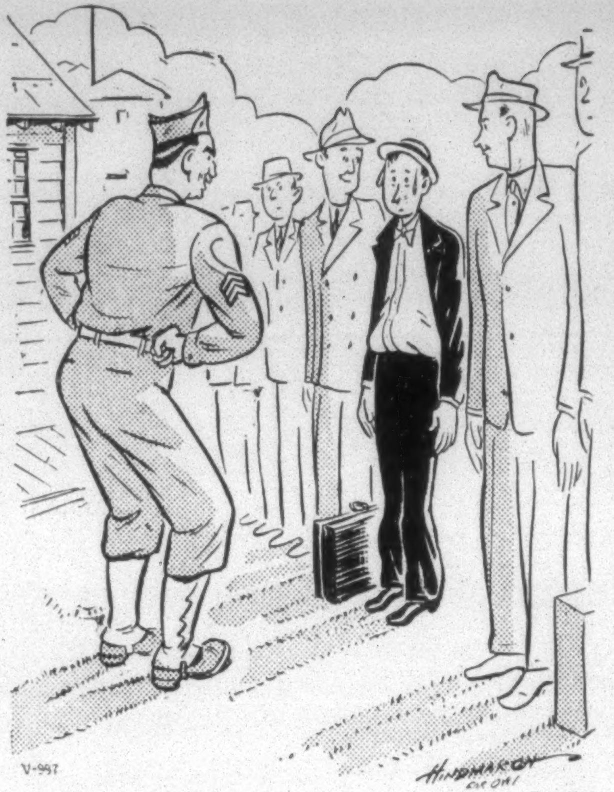
He knew that the change in plans would place the invasion forces at a disadvantage and might greatly increase our casualties but it made no difference to de Gaulle.

The radio commentators who are now daily demanding more recognition for de Gaulle and insisting that he be declared the leader of the French people, know that our administration and Winston Churchill must have good reasons for their refusal to trust him and place great powers in his hands.

De Gaulle is unpleasant and churlish in all of his contacts with American and British leaders and we have heard of no act of his which has been such as to inspire confidence in him.

The radio commentators who tried to stir up trouble over the Quebec conference, and persistently tried to force our military leaders to invade France before they were fully prepared, are now trying to force the recognition of de Gaulle as the supreme leader of the French.

There are some radio commentators who have been guilty of none of the above mentioned acts but there are others who have been guilty and are a burden upon our war effort.



Reprint.

"Well, if it ain't Little Clarence . . . who used to be absent from the mill two days every week."

Textile Schools Confused

Nebel Knitting Co., Inc., of Charlotte, replying to an invitation to attend the opening of the North Carolina Vocational Textile School at Belmont, N. C., on June 3rd, sent a check for $3,000 payable to the North Carolina Textile Foundation, Inc., which check was promptly forwarded by the Vocational Textile School to W. J. Carter, Greensboro, N. C., the president of the Textile Foundation.

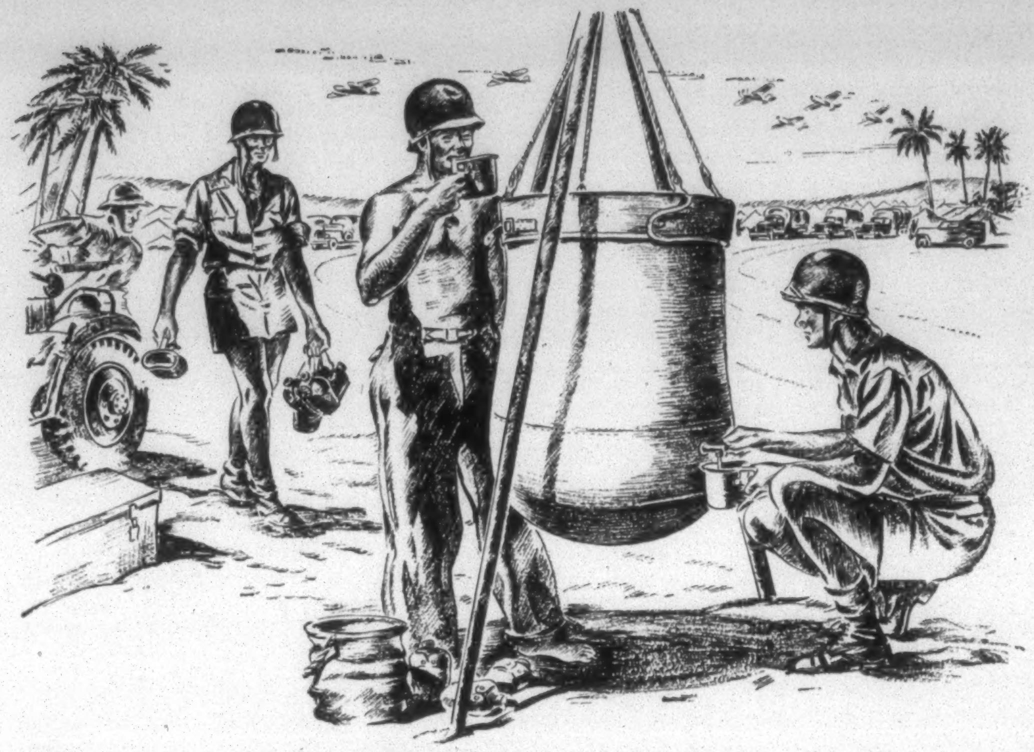
Nebel Knitting Co., Inc., had for some time been intending to make a contribution to the North Carolina Textile Foundation, Inc., but like many others had the erroneous idea that the recently completed North Carolina Vocational Textile School on the Wilkinson Boulevard near Belmont, N. C., was connected with the Textile Foundation.

The 1941 Legislature of North Carolina appropriated funds for the construction of a North Carolina Vocational Textile School which would give vocational instruction in textiles and machine shop work to North Carolina boys and girls who because they have not graduated from a high school or for other reasons cannot attend college. It is a trade school which gives short courses of instruction and is well worth while, but has no connection whatever with the textile school at N. C. State College nor is it a competitor. It gives an entirely different type of instruction.

Because the construction of the North Carolina Vocational Textile School at Belmont, N. C., was begun shortly after the North Carolina Textile Foundation, Inc., was formed by W. J. (Nick) Carter of Greensboro, N. C., many conceived the idea that there was a connection with same.

Donations to the North Carolina Textile Foundation, Inc., now exceed $525,000 and it is hoped that They will reach the goal of the needed $700,000 before the end of 1944.

Recent contributions have been Nebel Knitting Co., Inc., $3.000; Salisbury Cotton Mills, $2,500; Carolina Mills, Inc., $1,000; J. A. Cline & Son, $500; Delany & Co., $500; and Hickory Knitting Mills, $250.



Desert Punch . . .
Served in Cotton

Troops stationed in desert and tropical regions enjoy cool drinking water—thanks to a cotton duck water bag developed by Capt. W. L. Hicks of the Quartermaster Corps.

Formerly, bags were rubberized and water reached temperatures, under desert conditions, that made it almost undrinkable.

This new bag is made of a duck fabric treated with natural gums to simulate those found in flax. Moisture is allowed to permeate to the outside and evaporation cools water inside the bag.

Mills making this specially treated duck depend on Butterworth Machines at every step in the Wet End of Textile Finishing.

Butterworth Machines are playing their part in the battle of production—bleaching, boiling-out, drying, calendering, dyeing.

Butterworth Engineers freely offer their cooperation to mills seeking to achieve increased productive efficiency . . . or to repair or replace worn-out or obsolete equipment.

All of our facilities not required for Ordnance production are available to help you solve your present finishing problems, and aid you in your post war plans. Let us serve you now.

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of equipment now in use in the wet end of textile finishing cannot operate at a profit in competition with modern machines.

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Notes on Dyes and Dyeing

By GEORGE BROUN

Practical Application of Direct Dyestuffs — Part Three

Part One of this series dealt briefly with the historical background of direct colors, dyeing theories as related to them as well as general recommendations for dissolving directs. Part Two, relative to application of direct colors to hosiery and knit goods, is to be carried in Southern Knitter, this magazine's companion publication devoted to the knitting trade. Part Three describes the chief practical applications of directs and types of dyeing equipment used.

DIRECT colors, also known as substantive or cotton colors, are the most widely used of all coal tar dyes, as they are employed in dyeing all cellulosic fibers (cotton, viscose and cuprammonium rayons and linen) as well as silk, wool and casein fibers. Due to their ease of application these colors are dyed on practically every type of machine now in use throughout the knit goods, yarn, piece goods, printing and novelty textile finishing plants.

The various types of hosiery are dyed on paddle and enclosed rotary hosiery dyeing machines. Other knit goods are dyed on winches and open and enclosed becks. *(This subject is explained in Part Two.)*

Yarns are dyed on warp machines (long and short chain warp), pressure package, beam and skein machines. *Staple fibers* such as cotton and spun viscose rayon are dyed in pressure machines, better known as closed raw stock machines. The chief machines used on *piece goods* are the padder, jig and dye beck. If there is to be some special aftertreatment or handling of the direct dyed cloth, the piece goods may be run on continuous piece goods machines, as this enables a plant to handle heavy production quickly. In *print cloth* plants direct colors are dyed on jigs, becks and padders, then discharged on print machines. They may be printed directly, but are not generally satisfactory as to light and wash fastness. Among *novelty textiles,* pile goods are dyed with directs on winches. Directs are applied to laces and other goods on especially constructed machines or regular machines adapted for this use. Tufted and chenille bedspreads may be dyed solid shades by running them on paddle or enclosed hosiery machines.

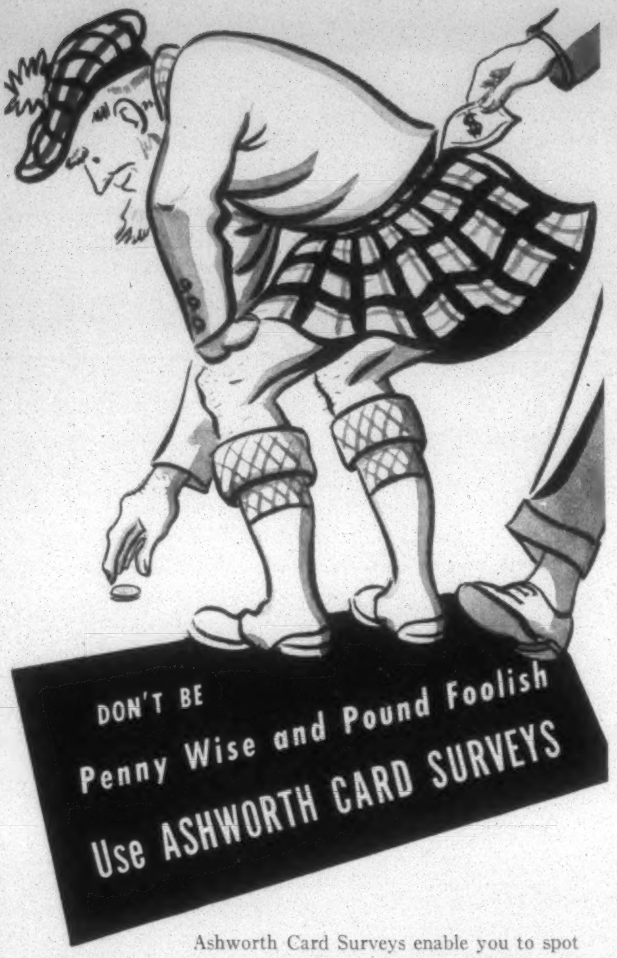
Taking up each of these various classes of textiles in the order listed in the previous paragraph, direct colors used in dyeing them vary according to the simplicity or complexity of operating the dyeing equipment employed as well as particular fastness properties required by the consumer.

The dyeing of direct and direct and developed colors in the yarn form on skein and warp dyeing machines is limited chiefly to sewing threads, rayon and mercerized yarns, with a scattering amount for the cordage and other minor branches of the textile industry.

Yarn skein dyeing may be grouped under the chief methods of application, which are: (1) the hand skein boxes; (2) mechanical skein machines operated by hydraulic hoists with the metal skein arms possessing a half rotary and eccentric motion simulating that of hand operated skein boxes. A newer type of skein machine is known as the "geyser" type whereby the processing liquor is pumped up through to arms while they rotate and sprays in geyser fashion over the surrounded skeins of yarns; and (3) the older types of mechanically operated reel dyeing skein machines were wooden or metal sticks on which the skeins were hung and these forms were then clamped in a metal wheel which rotated one revolution through the liquor and then reversed itself. At the present time the most widely used skein equipment is the geyser type, while the older types are used for tinting of yarns in the skein form, bleaching and other purposes where the levelness of the dyed shade is not of paramount importance.

Similar Method Used

The dyeing method used for running direct, as well as direct and developed colors, is very similar for both the hand and mechanically operated skein machines. Dyers running skein dyeing equipment know from practical experience that the skein yarns must be handled carefully on either the hand or mechanically operated skein machine, and for this reason the chief points that have been observed in processing yarn by this method are: (1) select wetting agents that wet quickly with the least foaming or buoyant-giving properties to the dyebath; (2) the wetting agent selected should possess wetting-out value as well as penetrative and leveling action during the dyeing operation and be highly rinsable. This leaves the processed yarn in an excellent condition for final finishing with softening agents so it will be free of harshness or stickiness; (3) the wetting-out and dyeing operations are best carried out in the same bath, thus eliminating the extra handling of skeins which tends to tangle yarns; and (4) select direct colors that can be dyed level and penetrate satisfactorily at tem-



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peratures not over 180 to 190° F. Higher temperatures require extra boiling up of bath, and this tangles yarn as well as it affects the final condition of dyed yarn.

The dyeing method is as follows: wet out skeins at 120 to 160° F. for 30 minutes, using two to four per cent wetting agent (if water is hard use one per cent water softening compound). Shut off steam and enter dissolved color over ten-minute period slowly at 120 to 160° F. Raise to 175 to 190° F., run at this temperature 30 minutes. Then add salt slowly and run 30 minutes. Sample for shade; drain bath, rinse thoroughly, give finishing bath, remove, hydroextract and dry. Where the wetting agent is chiefly of a detergent nature then add two per cent penetrant to bath before entering dissolved dyestuff.

On heavy yarns or oily rayon yarns it is best to run a preliminary scouring bath, using two to four per cent synthetic detergent and one to two per cent trisodium phosphate. Starting at 120° F., raise to 190° and run 30 minutes; drain off bath, rinse cold once, then enter two to four per cent penetrant and dissolved dyestuff at 100 to 120° F.; run ten minutes at this temperature, raise slowly over 20-minute period to 175 to 190° F.; run at 190° F. 30 minutes, then add salt slowly, run 20 to 40 minutes at 190° F.; sample and finish up as outlined above.

Wherever the direct and developed colors are skein dyed, it is best to shorten the direct dyeing period as much as is practical so as to reduce the total processing time. The diazotizing bath should be run not over 25 minutes, an intermediate cold rinse of five minutes, then the developing bath not over 25 minutes. Some dyers have found it desirable to finish off the developed dyed yarns with a hot soaping off bath, using a synthetic detergent or fatty alcohol so as to remove all traces of the acid diazotizing and alkaline developing baths, and thus obtain a softer yarn.

The selection of direct colors for skein depends upon fastness properties wanted, although the better quality fast-to-light directs possessing good wash fastness are usually run, since they exhaust slowly, dye more level and give more uniform dyed shades from lot to lot on skeins than the less expensive and faster exhausting directs. C. W. Whittaker*, the well-known English authority on dyeing, has worked out some interesting tests for the evaluation of the level dyeing properties of direct colors on viscose rayon and it will pay all readers who are interested in this work to obtain a copy of these methods and adopt them to their own plant use.

The older plants still use various designed warp dyeing equipment from the "Scotch Tub" box type, usually constructed with four or more immersion rolls and one or two heavy adjustable squeeze rolls, to the highly developed mechanically operated type for use in dyeing long chain warps in mercerizing plants and weaving mills requiring large amounts of colored yarns. Plants dyeing warps in any style usually kier boil the cotton yarn preliminary to dyeing instead of scouring yarn on the dyeing equipment. This kier boiling may be carried out in standard closed pressure kier or some type of vomit kier. On light shades the warp yarns are usually given a peroxide bleach in preference to an alkaline kier boiling.

The direct colors and direct and developed colors must be selected very carefully as to rate of exhausting, as all colors used in the dyeing formulas must exhaust approximately the same rate at different temperature. For light and medium depth shades dyers try to use formulas without the addition of common salt, but this is not always practical and economical on some of the more expensive direct colors. From an expense angle the simplest formulas are best, so dyers running warps prefer to buy a larger number of colors so that they may have a wide range of dyes to use in matching shades. They always try to use only two colors and never over three in a formula.

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*Dyeing with Coal Tar Dyestuffs—1938 Edition—C. W. Whittaker and C. C. Wilcock, pages 215-229.

A practical working procedure on the simpler type of warp dyeing machine is usually run as follows on direct colors and with slight changes for developed colors: prepare bath containing two pounds of penetrant per 100 gallons. Add one-half of dissolved direct dyestuff. Raise bath to 180 to 200° F. Run warp through one end. Feed into dyebath the balance of dye liquor on the last part of first and throughout second end. Sample for shade by drying portion when second end completed. On light shade two ends will give good results, but a total of four ends through the dyebath helps to prevent off-shade from end to end of the warp. If the shade is too heavy to dye without salt, the yarn should be given at least four to six ends before the salt is entered slowly over two ends in bath with steam cut off and bath not over 180° F. This enables the dyer to exhaust the dyebath slowly, obtaining level dyed shade throughout warp and preventing one or more colors in the formula from exhausting too quickly.

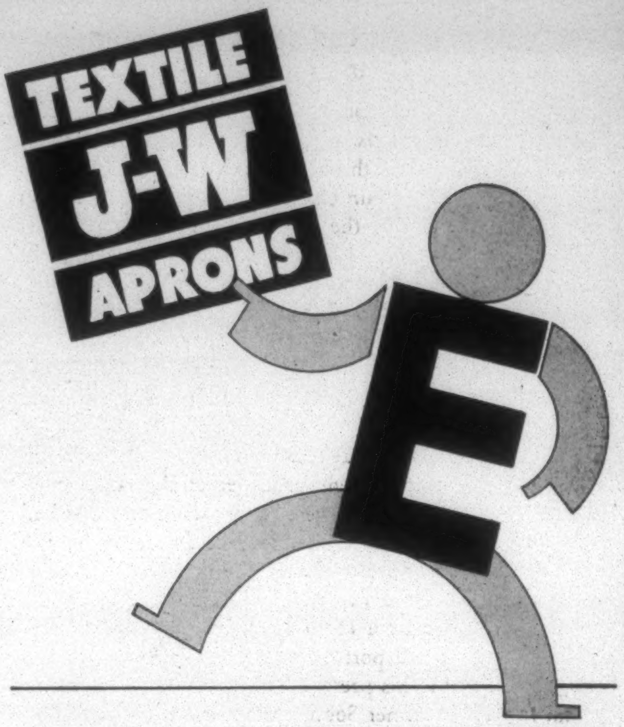
Whenever a dye lot goes off-shade and dyebath is salted, the best practice is to drop a portion of the dyebath or all of it and start a fresh bath, as it is very risky to add fresh direct colors to a salted bath when dyeing warps. After the shade has been obtained the bath is drained off, the dyed warp is given one or two ends cold rinse, then softening compounds are added to the bath at 110° F. and the warp is run one more end before it is ready for drying up. In dyeing direct and developed colors it is best to run two ends on both the diazotizing and developing baths, two-thirds of the chemicals to be entered in the bath at start and balance fed at start of second. For some of the faster developed colors, the dyed yarn is given a hot wash two ends at 120 to 140° F., using a small amount of fatty alcohol in bath. This hot rinse bath serves a double purpose, as the softener may be added directly to it and the yarn finished up directly from the hot rinse. *(To be continued.)*

WPB Lists Military Yarn Needs

Approximately 25,000,000 pounds of Bradford and French spun worsted weaving yarns will be required for new Army procurements of worsted cloth and existing orders for the Army, Navy and Air Forces, as well as estimated new orders for the armed forces, the War Production Board said recently. The woolen worsted cloth thus produced is to be used in the manufacture of Army shirts, elastique blouses, and the recently adopted field packets.

Orders for yarn needed to fill this new program must be completed by the spinning industry not later than Nov. 15.

Due to a transposition of type lines in a recent Borne-Scrymser Co. advertisement in this journal, the addresses of W. B. Uhler and John Ferguson were listed incorrectly. Mr. Uhler's headquarters are at Spartanburg, S. C., and Mr. Ferguson's are at LaGrange, Ga.



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DuPont Technical and Sales Representatives Attend Meeting

Technical and sales representatives of the Southern office of the organic chemicals department of E. I. duPont de Nemours & Co., Inc., with headquarters at Charlotte, N. C., and officials from the main office in Wilmington, Del., held a two-day conference at the Hotel Barringer in Charlotte, N. C., June 6 and 7. The organic chemicals department manufactures dyestuffs and organic chemical specialties. The discussions related to the various problems developing from and also in co-operation with the war effort.

D. C. Newman, Southern sales manager of the organic chemicals department, presided. Those attending from the main office were: E. J. Monaghan, assistant director of sales; Dr. M. A. Dahlen, assistant director of the technical laboratory; and A. B. Owens, manager of the sales development department. Mr. Owens at one time was attached to the Southern office. He later became a member of the export department and represented the company in China. At the outbreak of the war between China and Japan, he was recalled to the main office in Wilmington as assistant sales manager of the export department. On April 1, 1944, he was appointed to his present position.

John L. Dabbs, former Southern sales manager, and William P. Crayton, former warehouse superintendent, both of whom have retired from active service, attended the luncheons on both days. At luncheon June 6, W. Fred Crayton, sales representative located at Columbus, Ga., was presented a gift by his associates in honor of his approaching 25th anniversary with the DuPont Co. June 18. It was also announced that by the end of this year six members of the personnel of the Southern office will have received pins designating 25 years of service with the company.

"Cotton in Peace and War," by John F. Moloney, is the title of the sixth in a series of "Papers of the Institute of Research and Training in the Social Sciences, Vanderbilt University," published by the Vanderbilt University Press recently.

Shown above are some of those who took part in the Onyx Forum conducted last month by Onyx Oil & Chemical Co. at Jersey City, N. J. The chief speaker was Arthur R. Wachter of American Viscose Corp., whose subject was "The Crown Test Plan." Left to right in the photograph, W. H. Stuart of Onyx; R. R. Riegner of American Viscose; Mr. Wachter; Victor H. Berman, president and treasurer of Onyx; A. J. Heinzmann and Walter Stump of American Viscose. One feature of the forum was a motion picture entitled "The Frontier of Progress for Rayon." A large attendance was at hand and stayed for a buffet luncheon at the conclusion of the meeting. Another forum will be conducted this coming October.

A.A.T.C.C. Executive Committee Meets

The executive committee on research of the American Association of Textile Chemists and Colorists met last month at Lowell (Mass.) Textile Institute in order to inspect facilities which had been offered to the association for setting up a laboratory which will be adequate to take care of its present research program. A floor space of approximately 1,200 feet was approved and the association will take the necessary steps to equip it properly for the intended purpose. Among other business disposed of by the executive committee was the reorganization of the sub-committees which are charged with various research projects into "active" and "reference" committees. In several cases changes were made in personnel and chairmanships. In order to crystallize the research work for the next 12-month period, 14 specific research projects were set up which will be assigned to the respective sub-committees.

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PERSONALS

(Continued from Page 32)—

Dr. Joseph G. Davidson has been elected president of Carbide and Carbon Chemicals Corp. and Carbide and Carbon Chemicals, Ltd., units of Union Carbide and Carbon Corp. He has served in technical and executive capacities since the firms' organization and was vice-president in charge of sales for the 12 years previous to his election. Stanley B. Kirk has been named president of Linde Air Products Co., another Union subsidiary. He has been with the corporation since 1915.

J. G. Davidson

S. B. Kirk

Felix N. Williams, production manager of the phosphate division of Monsanto Chemical Co., has been made general manager of the company's plastics division at Springfield, Mass. He has been active in the chemical industry since his graduation in 1923 from the University of Virginia.

Sydney Bruce, president and treasurer of Camperdown Co., Inc., and treasurer of Piedmont Plush Mills, is chairman of textile mill solicitation for the Fifth War Loan Drive in the Greenville, S. C., area.

V. H. Hiermeier has been named industrial manager of the St. Louis, Mo., office of Brown Instrument Co., manufacturer of precision instruments.

H. C. Kliber, executive officer of the Philadelphia Quartermaster Depot procurement division and director of the industrial demobilization planning division of this Army installation, has been promoted to the rank of colonel.

John P. Stevens, Jr., president of the textile commission house which bears his family name, has been elected a member of the board of trustees of Central Hanover Bank & Trust Co., New York.

E. E. Conner, director of acetate yarn sales for American Viscose Corp., is reported to be recuperating satisfactorily at his home in New York from a recent attack of pneumonia.

E. A. Terrell, Jr., son of the president of Terrell Machine Co. at Charlotte, N. C., has been promoted by the Army to the rank of captain. Captain Terrell is stationed at Camp Polk, La.

Thomas H. West has succeeded the late B. H. Bristow Draper as president of the Draper Corp., Hopedale, Mass. He entered the company's employ in 1923, following practical experience in textile mills, and has been vice-president since 1938.

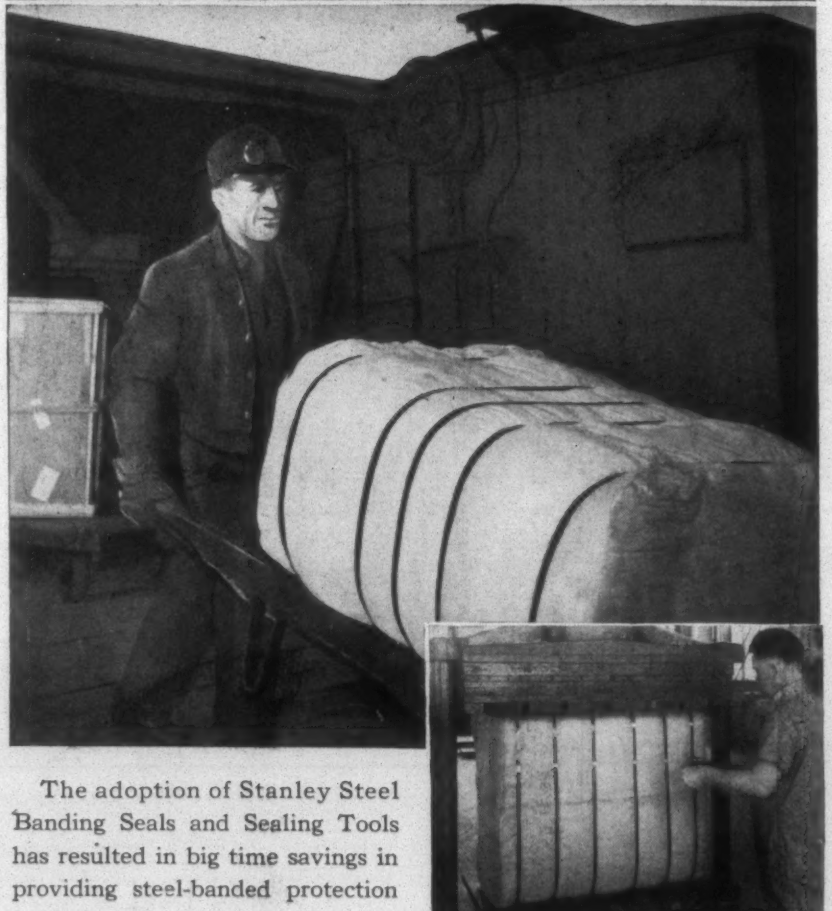
Col. Vere Painter has been named deputy director for inspection of the procurement division, Office of the Quartermaster General, U. S. Army. He will be stationed at headquarters of the Quartermaster Corps inspection service in New York.

William A. Whiteside has been elected secretary of Quaker Chemical Products Corp. at Conshohocken, Pa., manufacturer of textile chemical specialties.

J. Bruce McCullough at the end of this month will succeed Ed. N. Brower as head of the cotton yarn division of the textile, clothing and leather bureau, War Production Board. Mr. McCullough is on leave as Philadelphia representative for Avondale Mills. Mr. Brower, who is on leave as secretary-treasurer of Rockfish Mills at Hope Mills, N. C., is expected to return to private business. George Fowler has become head of the bureau's colored goods section, succeeding George Greey, who is returning to duties with Cone Export & Commission Co.

Duane Hall, retiring secretary and purchasing agent for Chase Bag Co. of New York, was honored at a recent estimonial dinner tendered by some 200 members of the burlap, cotton goods and bag trades.

Pfc. Robert H. Glover, a former doffer for Trenton Cotton Mills at Gastonia, N. C., was reported by a press association recently to have captured 19 Germans at once while fighting on the Italian front.



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The adoption of Stanley Steel Banding Seals and Sealing Tools has resulted in big time savings in providing steel-banded protection for bales. Furthermore, Stanley Sealed joints are stronger and smoother.

In these days of "hurry up" shipments and rough handling, if you are not making the most of this opportunity for faster, safer packing, write for details. The Stanley Works, Steel Strapping Div., New Britain, Conn.

STANLEY STEEL BANDING SYSTEMS

Resin Finishing of Synthetic and Natural Yarn Blended Fabrics

(Continued from Page 27)—by using them in printing pastes (finely ground) and applying these by pigment-pad-jig (reduced and dyed) method instead of padding reduced and dyeing on the jig or running by the continuous method. If the popularity of goods processed with alkali soluble cellulose increases, finishing plants may work out methods whereby they can be processed and dyed with vat colors by the continuous method similarly as mercerized cotton is now dyed.

Napthol colors are run chiefly by padding with the naptholate mix at 160 to 190° F., removing to jig and giving two ends cold, salt wash on heavy shades and one end on light shades before developing cold (70° F.) with a prepared base or fast color salt bath, then cold and hot rinses and soaping off in the rope or open width form before extraction, drying and framing ready for a final resin or cation softener to be applied when wanted. Napthols may be run by naptholating the prepared goods on the jig, salt washing and developing, but this method does not give as good wash or crock fastness as by the pad-jig method. These goods may be dyed with napthols on the hot flue continuous range when there are sufficient quantities of treated goods to be handled economically by the dyer.

Through careful planning dyers and finishers can obtain many desirable finishes to fit the type of goods being processed by proper manipulation of preparing, dyeing and finishing procedures. When goods treated with alkali soluble cellulose show too full and heavy a hand and crispness is wanted, then it may be best to reduce strength of cellulose solution used, partially dry and acid coagulate it there on the final finish; the goods may be given a light cation softener finish for a moderate soft crisp hand. To keep the amount of resin used to a minimum, the processor may use goods prepared with a one or two per cent alkali cellulose solution and then apply the resin in the final operation, and by proper manipulation can obtain finished goods possessing lower color costs, permanent shrinkage control and crushproof finish.

During the past two years there have been many restrictions as to the use of various fabric constructions; this is especially true of cotton fabrics. The white goods finisher and printing plants have been highly restricted to the lighter weight and cheaper constructions. To obtain satisfactory white goods, the finishers have worked out many methods of kiering, bleaching and finishing off these lightweight constructions with alkali soluble cellulose so as to step up the weight of the finished goods.

The procedures are different in the various plants according to the layout of equipment available. Some finishers have found it best to pad on strong alkali soluble cellulose solution on the gray goods direct from the bale, coagulate, neutralized, then kier boil, bleach and finish. If goods are to be mercerized, this may be carried out prior to finishing. Other finishers are applying the alkali soluble cellulose to the goods that have been kiered and bleached. To obtain a soft hand and finish on these built up goods, the use of a cation softener is proving of value, but careful selections of the cation softener must be made, as some types give a yellowish tinge to the goods built up and finished by this method and this cannot always be blamed on the reduced strength of the bleach solution now being required.

Reduction in Color Cost

The white goods finisher preparing goods for a print plant has a proposition similar to the white goods finishing plant, but usually has been getting lower quality and less uniform constructed goods than the white goods plant. To help correct this trouble these plants have found that alkali soluble cellulose properly applied gives them an increased weight on processed goods plus a more uniform fabric for printing, due to an equalization of the light and coarse yarns through the penetration and coating of these with the cellulose solution. Where the white goods department has given exceptionally heavy application of the alkali soluble cellulose to the goods, there is a definite color cost reduction due to the increased affinity of these treated goods for the different colors and resins used in the print work. *(To be continued.)*

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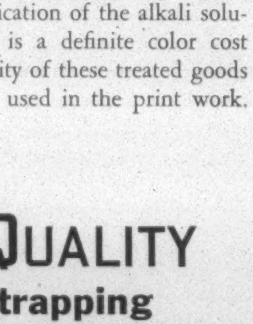


W. D. DODENHOFF COMPANY
619 RUTHERFORD STREET
GREENVILLE, SOUTH CAROLINA

Race-Plate Covering On Quality Weaves

(Continued from Page 20)—is affected and a series of white spots appear on the warp yarn.

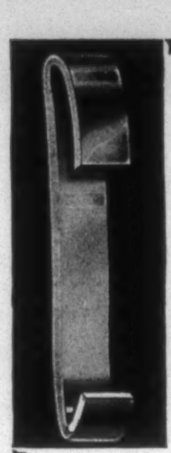
When white spots or streaks are noticed, they generally appear on one shed. In other words, the unbruised yarn shows no such spots, but the bruised yarn shows plainly. Thus if the shuttle is striking from the transfer side to left, the white spots appear on the top shed when the shuttle is traveling from left to right. When the race-plate is covered with a suitable fabric, the shuttle may also cause the same defect, called "shuttle marks," but yarn abrasion is not severe enough to break warp yarn every time. As soon as these bruised spots indicate a bouncing shuttle, inspect picking from faulty side. Parallel motion may be out; worn picker; shuttle bottom worn to a "rocker" shape and/or other reasons which may cause the defect. A fixer can fix these defects and will find that race-plate covering, even if 1/16-inch above the race-plate, will not influence the erratic flight of a shuttle nor its true flight.

A fixer will also find that when shuttles fly out they will not be caused through a slight height in the covering unless the covering is loose near box fronts. If a shuttle is thrown out several times, box ends may be out of alignment, giving the point of flight outward away from the reed instead of a slight pitch towards the reed. Even if a shuttle should rise slightly at the entry into the opening shed, the top shed keeps the shuttle downward if mechanical factors are correct. The shuttle must hug the reed!

To test out the picking action alignment, move the lay by hand or either push the pick stick forward with the shuttle in picking position. As the shuttle moves out of the box, and a slight uneven action is noticed, it will go through this same action during actual loom operation. Now move the shuttle in from the box mouth while holding the pick stick at front point of picking. Move the shuttle into the picker and if picking is out through a faulty picker or box alignment, the shuttle point will not fit into the picker block perfectly. If the point is outside of hole center, this proves that the shuttle is thrown outwards during actual loom running and will result in thrown-out shuttles. *(To be continued.)*

Shipments of rayon filament yarn by American mills totaled 45,600,000 pounds in May, according to *Rayon Organon,* published by the Textile Economics Bureau, Inc. The total compares with output of 43,200,000 pounds reported for April and with 41,800,000 pounds produced in May, 1943. Five months' shipments to May 31 totaled 219,100,000 pounds, an increase of eight per cent compared with shipments of 203,000,000 pounds reported during the corresponding period in 1943. Stocks of filament yarn held by producers on May 31 totaled 8,200,000 pounds against 7,800,000 pounds held on April 30 and 6,700,000 pounds held on May 31, 1943.

Rayon staple fiber shipments by American producers totaled 14,600,000 pounds in May against 11,300,000 pounds in April and 12,900,000 pounds in May, 1943. Staple fiber shipments for five months to May 31 aggregated 68,300,000, an increase of four per cent as compared with shipments of 65,400,000 pounds reported for the first five months in 1943. Staple fiber stocks held May 31 totaled 2,500,000 pounds against 1,800,000 pounds April 30 and 2,800,000 pounds May 31, 1943.



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Address "A. G. E.," care Textile Bulletin.

WANTED—Job as Cloth Room Overseer; 32 years' experience as Overseer on most all kinds of cotton, rayon goods; 54 years of age; married; good references; employed, but desire a change. Address "R-4," care Textile Bulletin.

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WANTED—Position as superintendent of small yarn mill. Thoroughly experienced and can furnish A-1 references. Address "Box 92," care Textile Bulletin.

OVERSEER, or Assistant Overseer Weaving; 20 years' experience in weaving department; I. C. S. graduate. Now employed. Will go anywhere. Draft status, age 38; married; family; 3-A; references. Would like to arrange interview. Know C & K and Draper looms, old and new. Address "J. F. R.," care Textile Bulletin.

TYING MACHINE FIXER and Operator with 15 years' experience wants job on E Model Machine only. Now employed as weaver. Wants to change work. Address "M. M.," care Textile Bulletin.

SUPERINTENDENT wants to change. Have had 20 years' experience on cotton carded yarn. Age 43; married and sober; can give references. Write "J," care Textile Bulletin.

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POSITION WANTED by experienced Superintendent or Carder and Spinner, with 25 years' experience on all classes of work. Also good cotton man. Can furnish good references. Address replies to "N-204," care Textile Bulletin.

WANTED—A job as Overseer Spinning; 18 years' experience. Running present job with excellent results; 40 years old, married; draft status 3-H; strictly sober; A-1 references as to ability and character. Address "Box 100," care Textile Bulletin.

WANTED—Job as Overseer of Spinning or Twisting. Tube twist and short orders a specialty. Age 36½ years. Large family. Capable of assisting superintendent. Address "Box 13," care Textile Bulletin.

POSITION WANTED as Carder and Spinner or superintendent. 15 years' experience in large Southern mills. Married; draft exempt. A-1 references. I. C. S. graduate. Address "G," care Textile Bulletin.

WANTED—Position as Cloth Room Overseer. Experienced on all grades of cloth. Now employed but desire a change. Best of references furnished. Address "H," care Textile Bulletin.

WANTED—Job as Assistant Overseer or Second Hand of Weaving. Twenty years' experience on drills, twills, duck and sheetings. Now employed, wish change. Married, age 38, 1-A (H), I. C. S. graduate. Interview desired. Address "20," care Textile Bulletin.

WANTED

Competent carder and spinner for medium sized mill located in desirable section, good salary to right man. State your age, size of family, and full experience and references in first letter.

**Address "J,"
care Textile Bulletin.**

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Manufacturers of Leather Belting

Phone 2218 (Day) 3916 (Nite)

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Two experienced men capable of plumbing spindles and doing general overhauling. The position is open on the west coast, and it is necessary that you have a clearance from your present employer. In answering this ad. please state your past experiences.

**Answr to "Box C. T. E.,"
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24—Parks-Cramer HDD Humidifiers with 220-volt motors.
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32—American Moistening High Duty Humidifiers with 220-volt motors.
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3—Bahnson Master Electric Controls, with valves.
36—Parks-Cramer Humidifiers motors only, 220-volt, 3-phase, 60 cycles current.
16—American Moistening Humidifier motors.

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Phone: Liberty 6547 **294 WASHINGTON STREET, BOSTON 8, MASS.**

Practical and Technical Superintendent

Now employed, would consider new connection. Understands fully all phases cotton and rayon manufacture. Not afraid of work. Draft exempt. Address "Practical," care Textile Bulletin.

MAN with several years' experience in supply room wants position as Supply Room Man with some good mill wanting a man of this kind.

Address "S. R.,"
care Textile Bulletin.

EXPERT ROLLER COVERER with over 30 years' experience on all kinds of leather and cork wants job with some mill needing a man for their roller shop.

Address "R. L.,"
care Textile Bulletin.

WANTED

Your surplus yarn—any quantity or put up. Submit sample, amount for sale and price. Wire reply will follow.

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100 LOOMS, ALL OTHER MACHINERY
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Warp Preparation Overseer. Should be experienced on all types of filament rayon yarns, high speed warping, multiple can slashers, and warp drawing-in. Southern Mill.

Address reply to "T. F. S.,"
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One portable Tieing-In Machine in first-class condition. This machine has been changed over from A. 4 G. to A Portable Mote Driven, ½ H. P. motor, 110 V. Can be inspected at our shop.

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1—Whitin frame; 10x5, 84 spindles. On skids. Additional spindles can be added. Good condition.

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Large fan, 10 ft. diameter. Formerly used on cooling tower.

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Hillsboro, N. C.

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NOTICE

Thomas R. Morton, formerly of North Carolina and later of Huntsville, Ala., may learn something to his advantage by writing

H. F. JONES
Box 58 Calhoun, Ga.

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Good Used Small Unit Machine for Converting Roving Waste into Cotton

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ALSO WANT TO EMPLOY AN EXPERIENCED OPERATOR FOR RUNNING THE ABOVE. MUST KNOW JACQUARD WEAVING AND DOUBLE SHUTTLE LOOMS.

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A manufacturer located in the United States who owns manufacturing plants in several countries, desires to employ a loom fixer for their cotton mill and finishing plant which is located in a large industrial South American city. For further particulars, write to address below.

Address "South American,"
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A manufacturer located in the United States who owns manufacturing plants in several countries, desires to employ Superintendent or Assistant Manager for their cotton mill and finishing plant which is located in a large industrial South American city. For further particulars, write to address below.

Address "Manufacturer,"
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INVITES OFFERS of cotton and rayon fabrics for its branches in the Dominican Republic, Cuba, Haiti, Honduras, Guatemala, El Salvador, Costa Riça, Colombia, Venezuela, Surinam and Curaçao.

Cotton Goods Market

NEW YORK.—Market observers are currently interested in the effects of the urgency rating pattern for the cotton textile industry, established this month by the War Production Board, which regulates production of all cotton fabrics, yarns, cordage and twines in the order of their importance to the war program and the civilian economy. Factors entering into the rating of the many individual items are broken down as follows: (1) the fundamental end-use importance of each item in the wartime economy, and (2) the adequacy of current production as measured against approved minimum essential needs. WPB aims both to steer labor into mills whose production of badly needed goods has slumped, and to encourage plants to make the higher-rated items.

Mills will be rated from ten through one, depending on the production urgency of the fabrics or yarns being manufactured. In general, the rating of ten will be assigned to items going primarily to meet urgent and behind-schedule military demands; the rating of nine being applied to items in short supply for indirect war use, highly critical civilan use, and direct and urgent military use but of a less urgent nature than those in the first group. The rating of eight will be given to items a great many of which are in heavy demand by the armed forces, and the remainder for important domestic clothing and export programs. The ratings of seven through one will be given to those items which are almost exclusively civilian-type fabrics, which, though badly needed, are nevertheless not in such urgent demand as those rated ten, nine and eight.

After consultation with War Production Board officials and critical review of last month's revision of Conservation Order M-317, the committees on industry and war activities of the Association of Cotton Textile Merchants of New York is reported to have become acquainted with its emergency nature and its characteristics of military necessity.

It is assumed that effective compliance with this order will be reflected in reduced requirements for succeeding periods, according to W. Ray Bell, association president. The committees have also been assured that the methods of issuing export licenses will be reviewed with a view of better co-ordination between the responsible government agencies. In addition, strong representations will be made to promote speed in the release of orders, shipping instructions and payments by the Treasury Department for Lend-Lease goods.

Possibilities of substituting flax for cotton duck in filling military needs were discussed at a recent meeting of the WPB flax industry advisory committee. WPB officials are certain of a sufficient supply of raw material.

J. P. STEVENS & CO., Inc.
fabrics for diversified uses
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Cotton Yarns Market

PHILADELPHIA.—In response to numerous inquiries regarding export obligations set forth in Column III of the cotton yarn distribution schedule in Conservation Order M-317, the cotton yarn branch of WPB has informed the market that "Order M-317 provides that a minimum percentage of a sale yarn producer's current calendar quarterly production must be delivered by him against rated export orders. However, it is not necessary for any mill to deliver its export production directly to an exporter or to a government agency such as Treasury Procurement buying in behalf of the Foreign Economic Administration. A mill may deliver such yarn to any person who will export it as yarn, whether or not that person bleaches, mercerizes, dyes or glazes the yarn prior to export. The delivery of sale yarn to a knitter or weaver, however, does not constitute credit toward the export obligation even though the knitted or woven goods made from such yarn are to be exported. In short, minimum percentages of each mill's production of sale yarn must be delivered for export in the form of yarn against a rated export order as defined in General Conservation Order M-317. Rated export orders for yarn emanate from the Foreign Economic Administration whether in connection with purchases by the U. S. Treasury Procurement Division or as duly certified commercial exports.

Reports from the Census Bureau in Washington indicate that consumption of cotton and spindle activity are still on the downgrade. Cotton consumed during May totaled 831,889 bales of lint compared with 902,586 during the same month of 1943. In the ten months ending May 31 cotton consumed totaled 8,412,168 bales of lint compared with 9,341,781 in the corresponding period a year previously.

Cotton consumed during May included: in cotton-growing states, 730,991 bales, compared with 787,927 in May last year; and for the ten months, 7,386,680 bales, compared with 8,102,649 in the corresponding period a year ago; and in the New England states, 81,023 bales in May compared with 90,227 in May last year; and for the ten months, 808,844 bales, compared with 982,787.

Cotton spindles active during May totaled 22,382,784, compared with 22,777,078 a year ago; broken down, in cotton-growing states, 17,348,012, compared with 17,404,460 a year ago; and in the New England states, 4,491,572, compared with 4,790,400.

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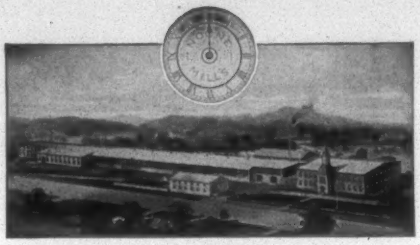

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We are the oldest manufacturers of Slasher Cloth in America. Our experience enables us to build a Slasher Cloth that will meet your most particular demand. Use NOONE'S SLASHER CLOTHS and be convinced.

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Use

NOONE'S ROLLER CLOTHS
NOONE'S SLASHER CLOTHS
NOONE'S CLEARER CLOTHS

The Incidence and Prevention of Dermatitis From Textile Finishes

(Continued from Page 22)—compared with the results of similar patch tests performed at the same time, on the same subjects, using as a control an undyed, unfinished piece of fabric and a piece of fabric containing a finish which has long been on the market without causing any trouble.

These tests have been carried out for the past two years by manufacturers, and there has been no similar outbreak of dermatitis occurring among the general population since that time, although new finishes have been developed and used.

Since we have been in the war, we have had an outbreak of dermatitis among workers sewing a material on which a waterproof finish was being used. This was traced down to the use of Japan wax by one manufacturer. Japan wax is derived from a plant closely related to poison ivy, and has many times previously been the cause of dermatitis. It should not be used as a fabric finish; especially since other innocuous waxes such as paraffin, carnaba, etc., are available.

Manufacturers of finishes have progressed a long way since the time that sulfonated oils and starches were used to give fabrics selling appeal. We now have creaseproof finishes, runproof finishes, crease retaining finishes, waterproof finishes, fireproof finishes, mildewproof finishes, fungousproof finishes, germproof finishes, and maybe I have left out a few more of which I am not aware. Anyhow, this is not the end; there will be more.

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BOX 1062 **GASTONIA, N. C.**

The chemicals used for these finishes all have possibilities of causing dermatitis. The finishes which are mildewproof, fungousproof and germproof are all composed of powerful antiseptics and germicides which in concentrated solutions are primary skin irritants and in dilute concentrations can sensitize certain individuals and cause dermatitis. Before they are put out for use by the public, they should all be tested in the manner described previously.

The section of dermatoses investigations of the United States Public Health Service is testing materials finished with mildewproof and insecticidal chemicals to be used by our armed forces. We have already found that certain of these will cause dermatitis—even in the high dilutions in which they are used on the fabrics. We have already had reported to us dermatitis among workers applying certain mildewproof finishes to camouflage netting and to sand boxes, and also dermatitis occurring among workers handling these fabrics in the field. Our tests of these particular finishes foretold that they were sensitizers. No cases have been reported to us of dermatitis from wearing the fabrics on which mildewproofing was used which had passed our tests.

Workers applying finishes to textiles containing chemicals which are skin irritants should be protected from contact with them either by mechanical devices or by machines so built that the worker does not come in contact with the chemical in the process of applying it, or by supplying the worker with impervious protective clothing in the form of impervious sleeves, gloves, aprons or boots. The public should be protected from dermatitis resulting from irritant textile finishes by having the manufacturers test new finishes for their skin irritating properties in the manner described above and using only those which prove themselves to be harmless.

Textile Executives Visit Army Camps

Approximately 2,000 businessmen, representatives of business associations in ten states, visited seven Army camps on "Infantry Day" June 15. The purpose of the visit was to give key men in America's war industries first-hand experience with Army life and a better insight into the use of the weapons of war which they are manufacturing.

The visitors arrived in camp the night of June 14, listened to a short address from the commanding officer of the division, viewed some Army training films, saw the troops in action in a special "Infantry Day" program on the 15th and broke camp on the 16th. They slept in barracks and ate in the mess halls with the troops. Industrialists visited the camps at the invitation of Robert P. Patterson, Undersecretary of War, Lieut.-Gen. Lesley J. McNair, commanding general of the Army Ground Forces, and the commanding generals of the various divisions at the camps.

Representatives of the Cotton Manufacturers Association of Georgia visited Fort Benning, Ga., and members of the Cotton Manufacturers Association of South Carolina were on hand at Fort Jackson, S. C.

OBITUARY

B. H. B. DRAPER

B. H. Bristow-Draper, president of the Draper Corp., died June 4 at his home in Hopedale, Mass., at the age of 59 years. Mr. Draper was the eldest son of the late Governor Eben S. Draper and Nancy Bristow Draper and descended from a long line of distinguished ancestors. Following his education, Mr. Draper acquired experience in various cotton mills and the firm's manufacturing plants. After serving as treasurer for several years he became president of the Draper Corp. in 1929, which office he held at the time of his death. Mr. Draper was a director of the First National Bank of Boston, United Shoe Machinery Corp. and Calhoun Mills at Calhoun Falls, S. C. Funeral services were held at the Hopedale Unitarian Church June 6, with burial in the Hopedale Village Cemetery. In addition to his widow, Queena Sanford Draper, he leaves three sons, B. H. Bristow Draper, Jr., who is treasurer of the corporation, Sgt. Eben Draper of the United States Army, and Robert C. Draper of the United States Navy; four grandchildren; a sister, Mrs. Dorothy Draper Hamlin of Wayland, Mass.; and a brother, Col. Eben S. Draper of Hopedale, a director of the Draper Corp.

B. H. B. Draper

W. A. HUNT

W. A. Hunt, owner and operator of W. A. Hunt Mfg. Agency, Inc., of LaGrange, Ga., died last month while en route to a business appointment at New Orleans, La. Familiarly known as "Wess," Mr. Hunt had called on cotton mills of the South for several years. He was active in promoting the various textile associations in the Southeast. Survivors include his wife and a son, Cpl. Jackson T. Hunt of Fort Warren, Wyo.

W. A. Hunt

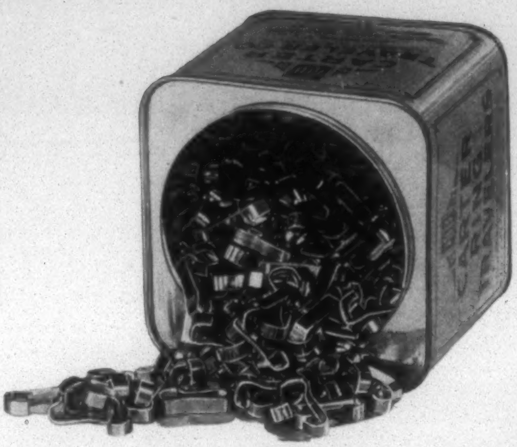
A. E. DAVIS

Arthur E. Davis, general manager and treasurer of Rowan Cotton Mills at Salisbury, N. C., died of a heart attack early this month. Surviving Mr. Davis are his widow, four daughters and five grandchildren. Funeral services were held at Salisbury.

R. G. LANEY

Robert G. Laney, 54, secretary of Ora Mill Co. at Shelby, N. C., died June 5 after an illness of several months. He had been associated with the company for some 14 years. Services were held June 6. Survivors include Mrs. Laney, two sons, two sisters and two brothers.

The ABC Line



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Travelers that work, don't just happen that way.

Each Carter Traveler is a precision-made item—accurate to minute detail of size, weight, shape, finish...and triple-inspected before packaged—untouched by human hands.

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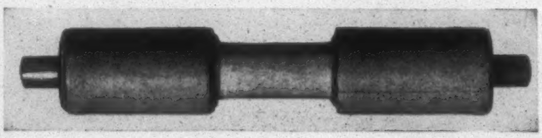

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SOUTHERN REPRESENTATIVE
—FOR—
ROY NOBLE
P. O. BOX 137 NEW BEDFORD, MASS.

Working Conditions That Meet the Test

(Continued from Page 17)—granting him longer vacations with pay than are accorded the workers under him. Sick-leave pay, separate wash and locker rooms, a special space in the parking lot, are among the recommended devices for improving their morale.

In spite of all the publicity accorded suggestion systems now being used in war plants and other factories to speed up production and increase efficiency, the idea has not been too widely accepted, institute executives report. Yet such systems have done much to increase output and earnings, and the cash awards paid for winning ideas have helped to swell the "take-home" pay. Contrary to widespread impressions, such awards require no approval of the War Labor Board, but the following cautions must be observed: (1) payment must be a flat sum amount, either in cash, check or war bond; (2) a record of every usable suggestion should be kept on file to protect against possible questioning by tax or wage-hour investigators; and (3) awards for suggestions should generally range from $5 to $100, depending upon the savings effected by the employee's idea.

The regular prizes can be supplemented periodically by others given to winners in contests, in which four or five cash prizes are offered for the best suggestions of the month. A variation of this might be a suggestion contest designed to eliminate safety hazards, in which the employee listing the largest number of correctible safety hazards receives first prize. Where a large number of women are employed, a "plant housekeeping" contest, designed to improve cleanliness and tidiness, will bring a good response.

Several of the dozen "trifles" listed at the opening of this article involve health and sanitation. Inadequate washrooms and toilet facilities, dirty floors, windows and machinery—these are all maintenance details. However much the inadequacy of facilities might be blamed on "conditions," the fact remains that management's concern for the health of the workers should dominate.

Indefinite, unreasonable or arbitrary plant rules are among the worst offenders in alienating employees toward their jobs. The "no smoking or else—" type of poster does infinite harm. Institute executives hold that if a rule cannot be "sold" to the employees on the basis of the valid reasons for it, then the rule should not be made in the first place. Tell *why* every rule is imposed, and its enforcement will cease to be a problem. This is a job for the employee manual, a copy of which should be given to each new worker at the time of hiring. It need not be elaborate or expensive; some of the best are mimeographed right in the mill office. *(See* TEXTILE BULLETIN, *March 15, 1944.)*

Arbitrary and summary handling of mill rule violations is a frequent source of complaint. Although war conditions have curbed this tendency somewhat, there is a labor relations job to do in this connection in almost every industry. One of the sins of management has been to blow hot and cold on this subject, depending upon supply and demand in the field of labor.

The entire subject of working conditions is far less involved and complicated than it might appear to some employers, it is pointed out. In essence, what is needed is a fair deal all around—not solely in wages and salaries, but also in the physical surroundings and the general atmosphere which spell the difference between a job and a *good* job.

Lubricant for Water Soluble Paste Pigments Developed

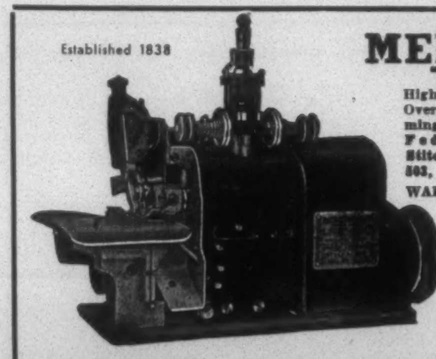
Kilcommons Chemicals Corp., Providence, R. I., announces a new lubricant for water soluble paste type pigment printing colors, which is known as "Lubricant D-6 Concentrate." It is said to be suitable for mixing with other types of colors, except indigosols, and does not affect washing or crocking fastness.

Heretofore, say the manufacturers, it has been common practice to stop printing machines every 2,400 to 3,000 yards in order to clean the doctor blades. Lubricant D-6 Concentrate makes such frequent stops unnecessary. The minimum continuous yardage that has been run, using this lubricant and before cleaning the blades, is 15,000 yards, while the maximum is 33,000 yards. This is an increase in continuous yardage of 600 to 1,100 per cent and means a very important increase in over-all production as well as a big decrease in maintenance cost.

While this is the first public announcement of Lubricant D-6 Concentrate, the manufacturers point out that it is already tried and proven; that it was originally developed for a well-known textile printer in this country, and that it has been used on well over a million yards of cloth with the results mentioned above.

Because of its greater durability, lighter weight and freedom from mildewing, nylon netting is being procured by the Army Quartermaster Corps for use in jungle hammocks to replace the cotton netting now used. For the present, nylon netting will be used only in jungle hammocks destined for theaters of operation where the mosquito problem is most acute, but it is contemplated that all jungle hammocks eventually will be made with nylon netting instead of cotton.

Nylon netting weighs about 1.5 ounces per square yard, as compared with 1.8 ounces for cotton netting. Besides this, it is mildew-proof, water repellent and sufficiently stiff without further chemical treatment or processing now necessary to impart these characteristics to cotton. It has a tensile strength nearly twice as great as that of cotton netting. While only three square yards of netting are required in the manufacture of a jungle hammock, the present procurement of nylon is sufficient for use in the fabrication of only a limited number.



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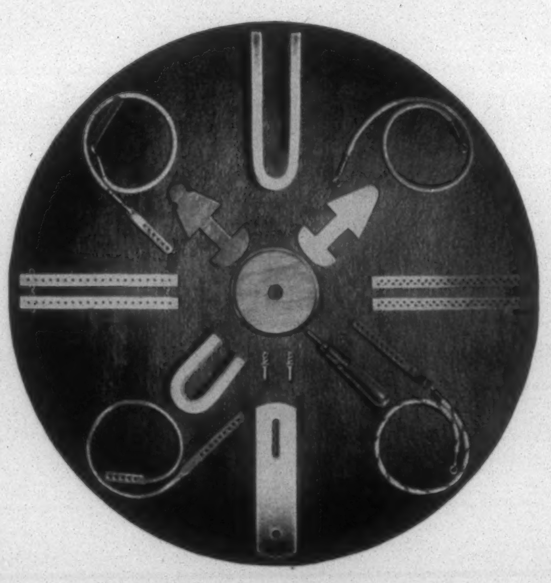

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Several Patents Relative to Textile Industry Granted Recently

Among recent patents granted, according to Paul B. Eaton, patent attorney of Charlotte, is the one to William G. Reynolds of Monroe, N. C., relative to a lap forming apparatus for pickers and the like whereby the pressure applied by the calendar racks to the lap roll is governed by the thickness of the lap roll at all times, so that a uniform pressure will be applied to the lap roll from beginning to end of the winding operation.

A patent for a process for treating fabrics with latex has been assigned to U. S. Rubber Co. The second of sixteen claims allowed describes "the process of treating fabrics which comprises immersing a fabric in an aqueous bath of an agglomerated latex composition in which the rubber agglomerates are in the form of composite particles comprising rubber and sulphur and zinc oxides which are microscopic and readily separable as such composite particles from the aqueous medium on standing, the weight ratio of said bath to said fabric being between 10:1 and 80:1 and said bath being capable of depositing its rubber agglomerates on said fabric on contract therewith and maintaining said fabric associated with said agglomerated latex composition until the desired amount of composite particles has deposited on the fabric."

A method for the multiple spinning of rayon yarn has been patented by Gustav A. M. Heim of the Netherlands and assigned to American Enka Corp. Four claims are allowed. In the process the yarns from a number of spinnerets are gathered together and travel in parallel over and under a series of rollers through the steps of washing, desulphuring, etc. After this the individual yarns are separated and wound onto individual spindles, much as are cotton ball-warps after processing, according to an observation of the illustrations accompanying the patent.

James M. Jones of Charlotte has been awarded a patent on a wheeled truck for yarn holders, having two compartments, one for filled bobbins and one for empty bobbins, the compartment for the filled bobbins having a vertically raisable bottom, so that during doffing operation, as the filled bobbins are used from the compartment, the bottom can be raised upwardly to present the filled bobbins near the top of the compartment to prevent undue stooping on the part of the operator engaged in the doffing and donning operation.

William L. Dunn and Fred C. Rankin of Gastonia and Stanley, N. C., respectively, were awarded a patent on a

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centrifugal pump having inner and outer housings whereby the direction of flow of liquid in a system such as a dyeing kier can be reversed by slightly rotating the inner housing, and also the liquid can be circulated through the system and discharged from the pump while new fluid is being introduced into the pump.

Other recent patentees include C. H. Campbell of Hartsville, S. C., on an underclearer roll, assigned to Sonoco Products Co.; John D. Hollingsworth of Greenville, S. C., on a roll for carding or garnett machines; Albert H. Lathrop of Asheville, N. C., on a loading beam, assigned to American Enka Corp.; John J. Kaufman, Jr., of Greenville, on a loom shuttle, assigned to Steel Heddle Mfg. Co. of Philadelphia; and Richard T. Osteen of Greenville, on a tape selvage frame, assigned to Walker Mfg. Co. of Philadelphia.

Increased Use of Burlap Allowed

In view of the somewhat improved burlap supply from India, and the tight supply of cotton shipping sacks, Textile Bag Order M-221 has been amended to permit an increased use of burlap. The list of commodities which may be shipped in new burlap sacks has been extended to include fertilizer, refined sugar, meat tankage. General regulations on bags for the shipment of wool remain, but the increased availability of burlap has made it possible to eliminate some restrictions, WPB stated recently.

To assure maximum packing utility for every textile bag, false seams are prohibited. The maker or user may not stitch in an additional seam which permits the bag to be packed at less than full capacity, the WPB said. Permitted bag sizes for certain commodities are specified in M-221. Since all burlap is imported from India, the future supply depends entirely on conditions there, which cannot be foreseen at this time, the War Production Board said.

The Pacific war has been termed a "cotton war." Thousands of soldiers stationed in the Mediterranean and Europe have had to be refitted from head to toe in cotton uniforms, but their demands for cotton are small compared with the huge yardage needed in the Pacific theater. American looms have been producing a steady stream of cotton goods for netting and gloves to ward off the malaria-carrying mosquito for use in bags for water purification and food preservation, for camouflage uniforms, hammocks and hospital supplies.

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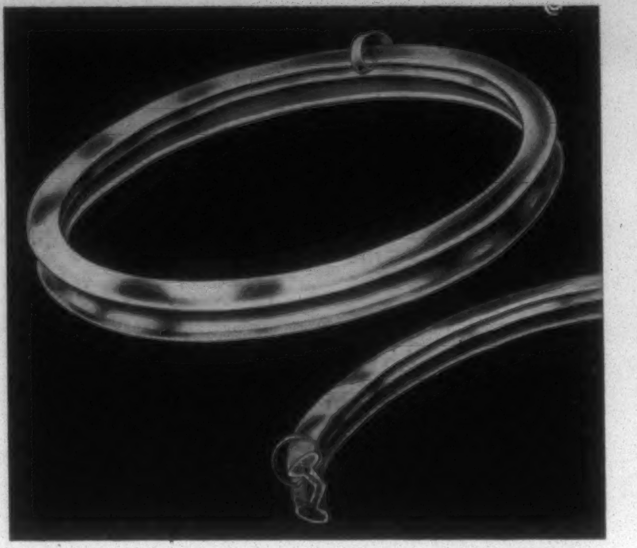

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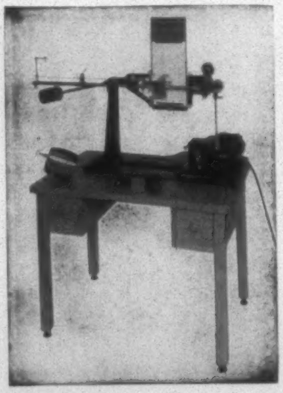

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Research To Be Co-ordinated

An understanding was reached by representatives of the American Association of Textile Chemists and Colorists and of the Textile Research Institute at a recent meeting to avoid any danger of duplication of effort by discussing with one another new research projects to determine any possible interference.

The Textile Research Institute proposes to undertake research work, both fundamental and applied, on all phases of textile manufacture. The American Association of Textile Chemists and Colorists is primarily concerned with the wet processing of textiles and is pre-eminent in the development of standard test methods for the use of the textile chemist, dyer, colorists, finisher, converter and consumer of textiles. The two organizations have a common interest in the promotion of knowledge of textiles through research but their programs do not overlap and through voluntary co-ordination will avoid any possibility of duplication.

The industry should not therefore hesitate to provide financial support in behalf of the research work of both organizations in proportion to the interest in their respective programs, it was stated. F. S. Blanchard, president of the Textile Research Institute, and Giles Hopkins, chairman of its applied research committee, represented the institute at the meeting. W. D. Appel, president of the American Association of Textile Chemists and Colorists, Hugh Christison, vice-president, P. J. Wood, past president, and Leonard Little, chairman of its executive committee on research, represented the A.A.T.C.C.

Delousing Bag Adopted By Services

Development of a delousing bag for individual treatment of soldiers' and sailors' clothes marks a big improvement over the World War I method of killing infestations. The bag is constructed of neoprene-coated cotton fabrics produced by the "Fabrikoid" division of the DuPont Co. The fabric is two-ply, combined as well as surface-coated with the man-made rubber. Strapping and cement, with which the bag is put together, are DuPont developments.

To delouse his clothes, the service man inserts a glass ampule of methyl bromide, wrapped in cloth, into an inside pocket of the bag. He then dumps his whole outfit, including shoes, into the bag and rolls it up at the top. The volatile liquid is dispersed by stepping on the glass ampule and walking over the whole bag to assure thorough permeation of the contents.

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Soldiers in European Theater To Get New Wool Jackets

American soldiers in the European Theater of Operations will be issued a new wool field jacket, made of olive drab serge, shortly after manufacturers start work on contracts let by the Philadelphia Quartermaster Depot the latter part of May. The new jacket is designed primarily for combat, but also may be worn for dress, and in the latter use will take the place of the enlisted men's olive drab coat, according to the Quartermaster Corps, under whose direction the new garment was developed. The garment is similar to the battle dress of the British Army, which has proved practicable both in combat and for dress wear.

Made of 18-ounce wool serge, in the dark olive drab shade, the new jacket is lined with Albert twill. It has a convertible collar which may be turned up tight around the neck. Shoulder pads are constructed so as to be easily washable. The jacket has two inside breast pockets and two outside breast patch pockets, with flaps. It has a fly front, and the sleeves are equipped with an adjustable, shirt-type closure. The waist is adjustable by means of side buckles and tabs. It may be worn with regular wool serge trousers or wool field trousers. It is designed so that it may be worn over a high-neck sweater and under the new M-1943 cotton field jacket. The initial procurement of the new jacket calls for almost 4,000,000 garments, to be delivered with all possible speed. The Quartermaster Corps pointed out that the whole-hearted co-operation of all branches of industry capable of producing jackets—coat makers, jacket makers, overcoat makers and many others—will be needed to meet requirements.

Bobbin and Spool Prices Raised

Manufacturers of textile bobbins and spools of the types made principally of wood may increase present maximum prices to an amount not to exceed nine per cent over their Oct. 1, 1941, base date prices for the same items, the OPA announced this month.

In addition to the industry-wide increase, individual adjustments in excess of nine per cent above base date prices were granted to some manufacturers. The industry-wide increase, effective June 6, 1944, follows and supersedes an increase of six per cent over their Oct. 1, 1941, base date prices granted by OPA to manufacturers of textile bobbins and spools in November, 1943.

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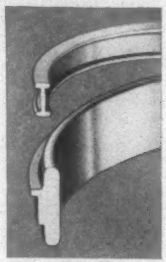

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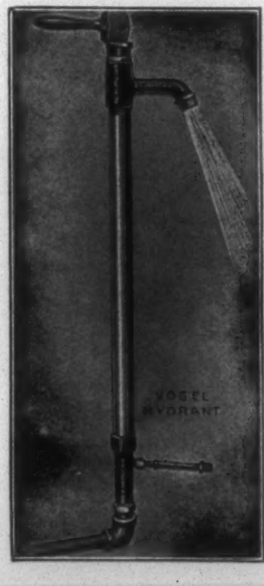

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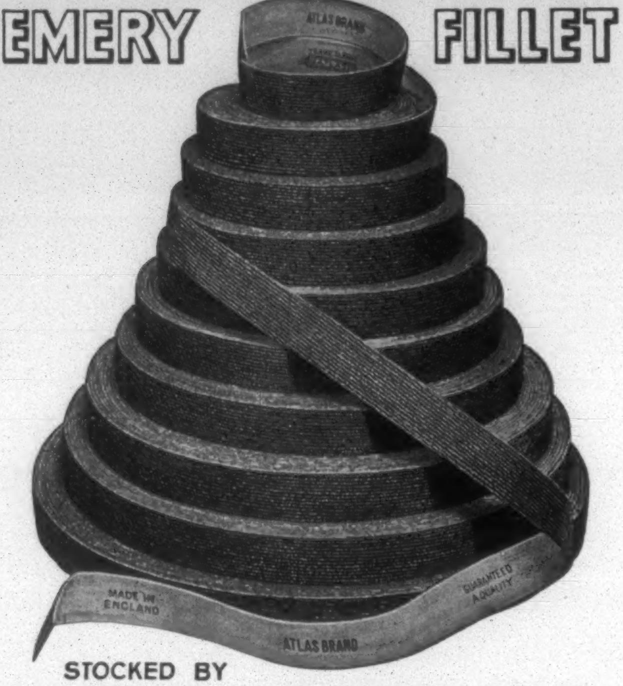

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Policies on Supply Civilian Needs Outlined By New OCR Chief

Outlining the policies which will guide him in his new office, William Y. Elliott, War Production Board vice-chairman for the Office of Civilian Requirements, said recently that his primary function would be "to see that the essential civilian production that supports the war is kept going. "I am not here to press claims that might endanger production of a single weapon needed for the quickest possible victory," he asserted. "What we are programming will help the war effort, not hurt it."

Mr. Elliott revealed that the Office of Civilian Requirements has been given additional recognition as the claimant for the civilian economy with a voice in War Production Board policy making at the highest levels. To effectuate this, the following steps have been taken: (1) the Office of Civilian Requirements has been given membership on the top production executive committee; (2) it will also have membership on the staff group set up under the production executive committee to advise Executive Vice-Chairman C. E. Wilson of the War Production Board. This staff group is made up of representatives of the armed services, the War Manpower Commission, the Smaller War Plants Corp. and other agencies. Its function is to plan military production cutbacks so as to permit orderly resumption of civilian production without interfering with maximum war production; (3) OCR will have membership on the Surplus War Property Board; (4) OCR will have membership on the essential activities committee of the War Manpower Commission; and (5) it will have an official representative serving as a full member on all area production and modified area production urgency committees.

Mr. Elliott said that OCR membership on the Surplus War Property Board constituted recognition of OCR's important policy interest in the disposal of surplus war property, since the Office of Civilian Requirements establishes distributive policies for the War Production Board on civilian consumer goods. Through its membership on the production executive committee, Mr. Elliott said, OCR planning for the resumption of the manufacture of badly needed civilian items will be greatly facilitated by the advance information it will be able to secure regarding releases by the Army, Navy and Air Forces of components and facilities freed by cutbacks in their programs. But the actual production of many civilian products must await adjustments dependent on the course of the war, Mr. Elliott emphasized. "It is our job," he asserted, "to see that full

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productive resources are utilized for real essential items. We must take up the slack as it comes."

Mr. Elliott said that as a result of recent arrangements, the infants' clothing and heavyweight underwear programs were now in very much improved shape. In addition, he asserted, the work glove program, which has been as much as 50 per cent shy of requirements, is beginning to make up lost ground. Recent actions by the Office of Price Administration, taken in conjunction with War Production Board directives and wage actions have given a substantial stimulus to the program which will show results in the next few months, he explained.

"In pressing for programs to meet the civilian requirements we recognize that the essentiality of the war program was never greater," Mr. Elliott said. "There can be no thought of jeopardizing war production, nor of diverting needed facilities from the war effort. "However, the Army is as much concerned as we are in seeing that the essential civilian production is kept running. They share our views that an essential supporting civilian production is part of the war program—so that homes may be kept up, so that the people may be decently clothed, absenteeism halted and the equipment provided which is necessary to maintain a civilian economy. We must press for this essential production to be increased. We do not propose to expand the production of luxury items which would drain manpower from the war production or essential civilian programs. We are looking to the production of only those items which are necessary to the civilian economy—textiles for work clothes, service equipment, work gloves, children's clothes, farm radio batteries and tubes—so that the need for ordinary decencies in human living can be met, just as we seek to assure ourselves that there are enough stoves and shoes to meet the rationing requirements."

The board of directors of American Viscose Corp. has appropriated funds for the purchase of additional equipment for the company's plants at Nitro, W. Va., and Meadville, Pa., which will be obtained as soon as conditions permit purchase. It is important to note, the company states, that this may not be possible until the war has ended or until the pressure of war demand for metals and other vital materials has very materially decreased. When obtained, the new equipment will be used to increase the output of viscose process rayon staple at the Nitro plant by approximately 12,000,000 pounds a year, and to increase the annual output of acetate rayon yarn at the Meadville plant by approximately the same poundage.

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Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

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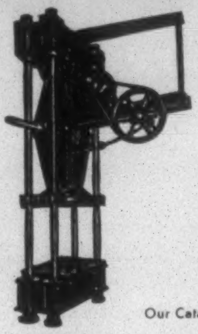

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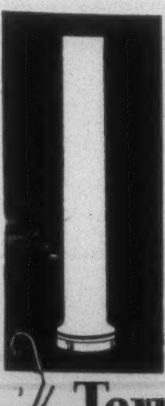

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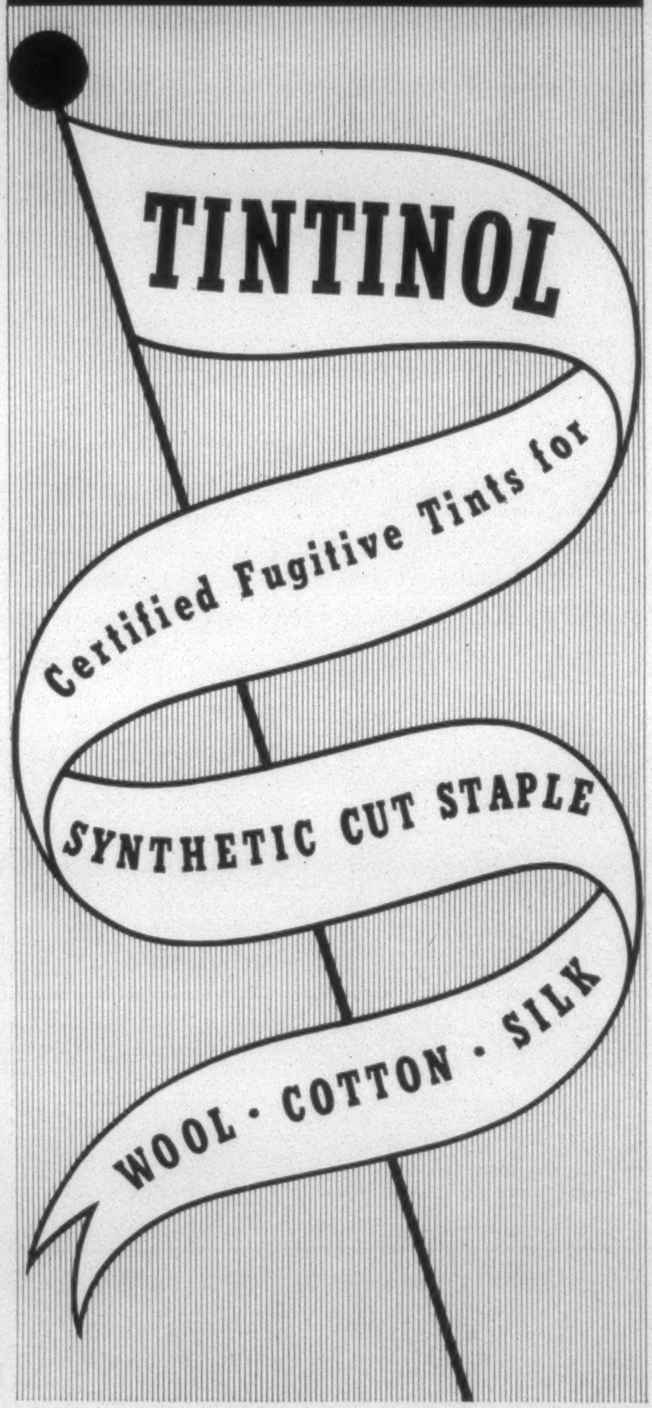

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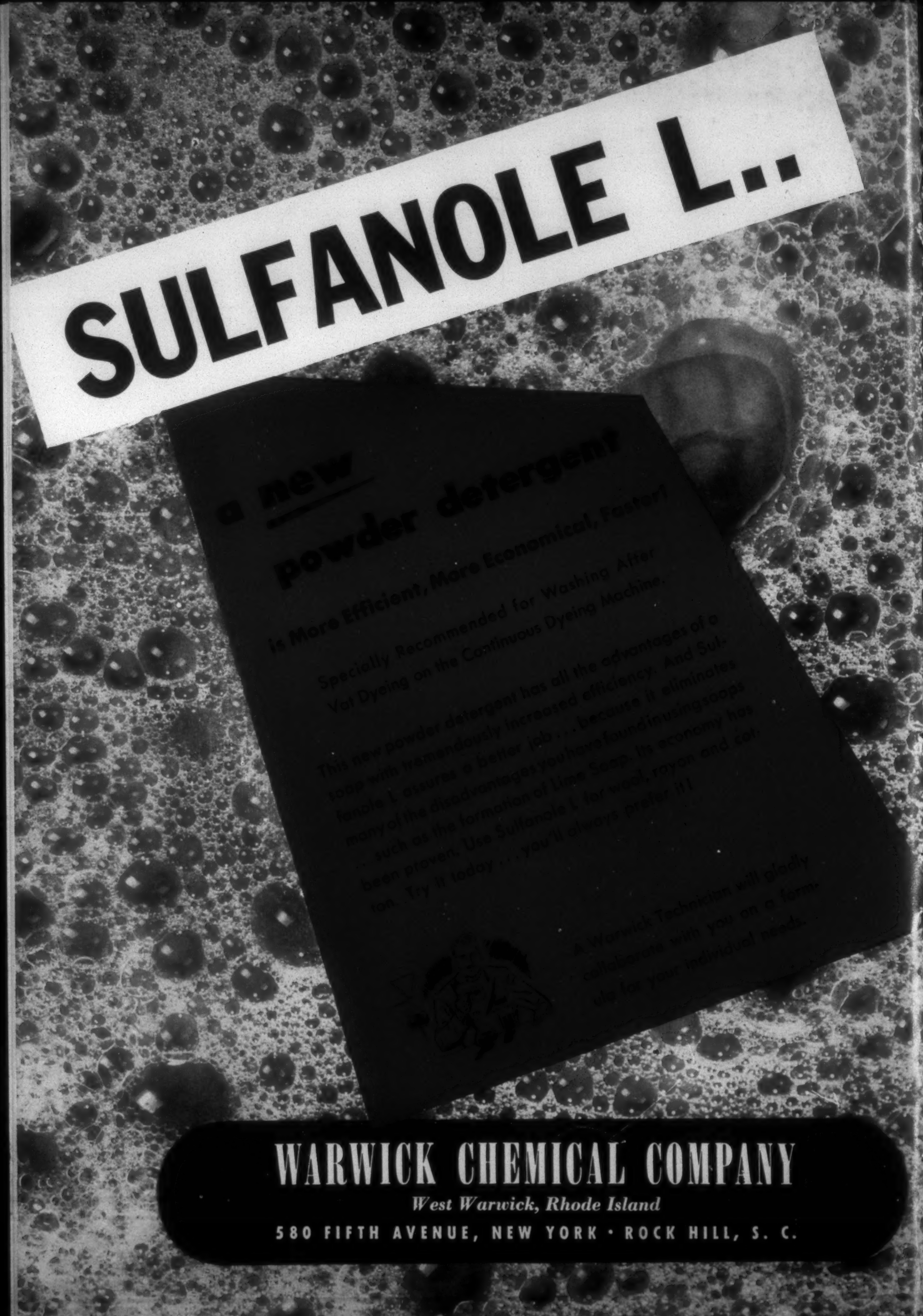

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